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185

190

<210> 3847
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 3847
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240
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300
ccaacctgtg ctggccacca aggggcagtg atcagatatg gtcctgccc tccacacgct
360
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420
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480
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540
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600
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720
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1200
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1260
aagaaagctg tgacagatgc catcatgtct cgccgagcca tccgcaacat gaacaccctg
1320

tatccagatg ccaccccaga ggagctccag gcaatggaca atgtctgcat catctgccga
1380
gaagagatgg tgactgggtgc caagagactg ccttgcaacc acattttcca taccaggtgg
1440
gaggggccct ggggagcctg cccagcaggg cccaggcccc agaaggcagg ccctaaggga
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1570

<210> 3848

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3848

Pro	Asp	Pro	Val	Pro	Ser	Pro	Ala	Phe	Thr	Asp	Cys	Pro	Phe	Arg	Gln
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Phe	Lys	Lys	Ala	Val	Thr	Asp	Ala	Ile	Met	Ser	Arg	Arg	Ala	Ile	Arg
			20					25					30		
Asn	Met	Asn	Thr	Leu	Tyr	Pro	Asp	Ala	Thr	Pro	Glu	Glu	Leu	Gln	Ala
		35					40				45				
Met	Asp	Asn	Val	Cys	Ile	Ile	Cys	Arg	Glu	Glu	Met	Val	Thr	Gly	Ala
	50					55				60					
Lys	Arg	Leu	Pro	Cys	Asn	His	Ile	Phe	His	Thr	Arg	Trp	Glu	Gly	Pro
65				70					75				80		
Trp	Gly	Ala	Cys	Pro	Ala	Gly	Pro	Arg	Pro	Gln	Lys	Ala	Gly	Pro	Lys
			85					90					95		
Gly	Pro	Ala	Asp	Leu	Cys	Leu	Ala	Leu	Thr	Arg	Ser	Cys	Leu	Arg	Ser
			100					105					110		
Trp	Phe	Gln	Arg	Gln	Gln	Thr	Cys								
		115				120									

<210> 3849

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 3849

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120
gatcacgcgc agcgggaacc cggctctctga gtccgccccg tgcgttgctt catcagagtc
180
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240
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300
gcggccgcgg cgcgggcccc gcgggggtta gaggtcacca tgctgagggt cgcgtggagg
360
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420

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 480
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 540
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 600
 gtcgtgaaaa gactcttgct tttggaaatg gccacaaga aggagatgct aaaaatcaag
 660
 caagaacagt ttatgaagaa gattgttgca aaccagagg acaccagatc cctggaggct
 720
 cgaattattg cctgtgtctg caagatccgc agttatgaag aacacttgga gaaacatcga
 780
 aaggacaaag cccacaaag ctatctgcta atgagcattg accagaggaa aaagatgctc
 840
 aaaaacctcc gtaacaccaa ctatgatgct tttgagaaga tatgctgggg gctgggaatt
 900
 gactacacct tccccctct gtattaccga agagcccacc gccgattcgt gaccaagaag
 960
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 1020
 aaggctgcag cagcagccca aaaacaagca aagcggagga acccagacag cctgccaag
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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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Val	Thr	Gln	Val	Leu	Val	Pro	Gly	Leu	Pro	Gly	Gly	Gly	Ser	Ala	Lys
			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55					60				
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
65					70					75				80	
Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
			85					90					95		
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
			100					105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115				120					125				
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130					135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
145				150					155					160	
Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
			165					170					175		
Val	Phe	Glu	Lys	Ile	Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro

180	185	190
Pro Leu Tyr Tyr Arg Arg Ala His Arg Arg Phe Val Thr Lys Lys Ala		
195	200	205
Leu Cys Ile Arg Val Phe Gln Glu Thr Gln Lys Leu Lys Lys Arg Arg		
210	215	220
Arg Ala Leu Lys Ala Ala Ala Ala Ala Gln Lys Gln Ala Lys Arg Arg		
225	230	235
Asn Pro Asp Ser Pro Ala Lys Ala Ile Pro Lys Thr Leu Lys Asp Ser		
245	250	255

Gln

<210> 3851

<211> 1183

<212> DNA

<213> Homo sapiens

<400> 3851

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 120
 ggccgtgtcc gccgggcaac tccagccgag gcctgggctt ctgcctgcag gtgtctgcgg
 180
 cgaggcccct agggtagcgc ccgatttggc cccatggtgg gtttcggggc caaccggcgg
 240
 gctggccgcc tgccctctct cgtgctggtg gtgctgctgg tggtagatgt cgtcctcgcc
 300
 ttcaactact ggagcatctc ctcccgccac gtctgcttc aggaggaggt ggccgagctg
 360
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 420
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 480
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 540
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 660
 aacaatactt accttgtaga gaggttagaa tatgaaagtt ttcagtgtgg acagcagatg
 720
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 780
 gaacaaaagc aagagaccca aaagattcaa tcaaatgatg gaaaggaatt ggatataaac
 840
 aatcaagtag tacctaaaaa tattccaaaa gtagctgaga atgttgacaga taagaatgaa
 900
 gaaccctcaa gcaatcatat tccacatggg aaagaacaaa tcaaaagagg tggtagtgca
 960
 gggatgcttg gaatagaaga gaatgaccta gcaaaagttg atgatcttcc cctgcttta
 1020
 aggaagcctc ctatttcagt ttctcaacat gaaagtcac aagcaatctc ccatcttcca
 1080

actggacaac ctctctcccc aaatatgcct ccagattcac acataaacca caatggaaac

1140

cccggctactt caaacacagaa tccttcacgt ccccttcacg cgt

1183

<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

Met	Val	Gly	Phe	Gly	Ala	Asn	Arg	Arg	Ala	Gly	Arg	Leu	Pro	Ser	Leu
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Val	Leu	Val	Val	Leu	Leu	Val	Val	Ile	Val	Val	Leu	Ala	Phe	Asn	Tyr
			20					25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
			35				40						45		
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
	50					55				60					
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln	
65					70					75				80	
Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
				85					90					95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
			100						105				110		
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu
			115				120						125		
Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
145					150					155					160
Glu	Ser	Phe	Gln	Cys	Gly	Gln	Gln	Met	Lys	Glu	Leu	Arg	Ala	Gln	His
				165					170					175	
Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys
			180						185					190	
Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile
		195					200						205		
Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val
	210					215						220			
Ala	Asp	Lys	Asn	Glu	Glu	Pro	Ser	Ser	Asn	His	Ile	Pro	His	Gly	Lys
225					230					235					240
Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
				245					250					255	
Asn	Asp	Leu	Ala	Lys	Val	Asp	Asp	Leu	Pro	Pro	Ala	Leu	Arg	Lys	Pro
			260						265					270	
Pro	Ile	Ser	Val	Ser	Gln	His	Glu	Ser	His	Gln	Ala	Ile	Ser	His	Leu
		275					280							285	
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
	290					295						300			
Asn	His	Asn	Gly	Asn	Pro	Gly	Thr	Ser	Lys	Gln	Asn	Pro	Ser	Ser	Pro
305					310					315					320
Leu	His	Ala													

<210> 3853
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 3853
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 120
 atggacgaac gaaggactat taaactcagt gagtgttaca gaggatttgc tgactcagaa
 180
 cgcaaagtta ttcccatcat ttcaaaatgt ttggaaggaa tgattcttgc agcaaaatca
 240
 gttgatgaaa gaagagactc tcaaatggtg gtagactcct tcaaatctgg ttttgaacct
 300
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 360
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 375

<210> 3854
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 3854
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 Gln Asn Phe Asn Gly Glu Gln His Lys His Phe Tyr Val Val Ile Pro
 20 25 30
 Gln Ile Tyr Lys Gln Leu Gln Glu Met Asp Glu Arg Arg Thr Ile Lys
 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
 85 90 95
 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
 100 105 110
 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser
 115 120 125

<210> 3855
 <211> 1377
 <212> DNA
 <213> Homo sapiens

<400> 3855
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 120

cagaactgtg gctctggtgt ggttgggata gtggactatg gacctagacc caacaagagt
 180
 gaaatgtggg atgtcttctg ctatcggatg aaagatgtga actgcacctg caaggtgggc
 240
 tatgtgggag atggcttctc atgcagtggg aacctgctgc aggtcctgat gtccttcccc
 300
 tcactcaca acttcttgac ggaagtgtg gcctattcca acagctcagc tcgaggccgt
 360
 gcatttctag aacacctgac tgacctgtcc atccgaggca cctctttgt gccacagaac
 420
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 480
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 540
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 600
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 660
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 720
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 780
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 aatgttgacg ctcttgcaa gcagcagcct gagaatatct cgaaccctt gtatgagagc
 900
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 1020
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 1080
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 1140
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 1200
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 1260
 taactgtgat ctttcttccc tgtagattg taagcctccg tctttgtatc ccagcccta
 1320
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

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Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
	20							25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

35	40	45
Gly Ile Val Asp Tyr Gly	Pro Arg Pro Asn Lys	Ser Glu Met Trp Asp
50	55	60
Val Phe Cys Tyr Arg Met	Lys Asp Val Asn Cys Thr	Cys Lys Val Gly
65	70	75
Tyr Val Gly Asp Gly Phe	Ser Cys Ser Gly Asn	Leu Leu Gln Val Leu
85	90	95
Met Ser Phe Pro Ser Leu	Thr Asn Phe Leu Thr	Glu Val Leu Ala Tyr
100	105	110
Ser Asn Ser Ser Ala Arg	Gly Arg Ala Phe Leu	Glu His Leu Thr Asp
115	120	125
Leu Ser Ile Arg Gly Thr	Leu Phe Val Pro Gln	Asn Ser Gly Leu Gly
130	135	140
Glu Asn Glu Thr Leu Ser	Gly Arg Asp Ile Glu	His His Leu Ala Asn
145	150	155
Val Ser Met Phe Phe Tyr	Asn Asp Leu Val Asn	Gly Thr Xaa Pro Ala
165	170	175
Asn Glu Gly Gly Lys Gln	Ala Ala His His Cys	Gln Pro Gly Pro Thr
180	185	190
Xaa Gln Pro Thr Glu Thr	Arg Phe Val Asp Gly	Arg Ala Ile Leu Gln
195	200	205
Trp Asp Ile Phe Ala Ser	Asn Gly Ile Ile His	Val Ile Ser Arg Pro
210	215	220
Leu Lys Ala Pro Pro Ala	Pro Val Thr Leu Thr	His Thr Gly Leu Gly
225	230	235
Ala Gly Ile Phe Phe Ala	Ile Ile Leu Val Thr	Gly Ala Val Ala Leu
245	250	255
Ala Ala Tyr Ser Tyr Phe	Arg Ile Asn Arg Arg	Thr Ile Gly Phe Gln
260	265	270
His Phe Glu Ser Glu Glu	Asp Ile Asn Val Ala	Ala Leu Gly Lys Gln
275	280	285
Gln Pro Glu Asn Ile Ser	Asn Pro Leu Tyr Glu	Ser Thr Thr Ser Ala
290	295	300
Pro Pro Glu Pro Ser Tyr	Asp Pro Phe Thr Asp	Ser Glu Glu Arg Gln
305	310	315
Leu Glu Gly Asn Asp Pro	Leu Arg Thr Leu	
325	330	

<210> 3857

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3857

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 120
 ccttccacca ggtcctgggc gagaagcata agcgcggcca cctggccgag gccgagggcc
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 acagggacac ttgcgacgaa gactcgttgg ccggcgagtc ggaccgcata gacgatggca
 240
 ctgttaatgg ccgcggctgc tccccgggag agtcggcctc ggggggcctg tccaaaaagc
 300

tgctgctggg cagccccagc tcgctgagcc ccttctctaa gcgcatcaag ctcgagaagg
 360
 agttcgacct gccccgggcc gcgatgccca acacggagaa cgtgtactcg cagtggctcg
 420
 ccggctacgc ggctccagg cagctcaaag atcccttcct tagcttcgga gactccagac
 480
 aatcgccctt tgctctctcg tcggagcact cctcggagaa cgggagcttg cgcttctcca
 540
 caccgccccg ggagctggac ggagggatct cggggcgag cggcacggga agtggaggga
 600
 gcacgcccca tattagtggc cggggccccg gcaggcccag ctcaaaagag ggcagacgca
 660
 gcgacacttg ttcttcacac acccccattc ggcgtagtac ccagagagct caagatgtgt
 720
 ggcagttttc ggatggaagc tcgagagccc ttaagttctg agaaaatttg aagcccccg
 780
 gggtaggggtg gacgcgt
 797

<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

Xaa	Arg	Ala	Thr	Thr	Arg	Thr	Ala	Ser	Gly	Ala	Arg	Ser	Trp	Ala	Trp
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Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
		20						25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40					45			
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50					55					60				
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
65					70						75				

<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 120
 tttgaagctc ggagtaaaac tgcttgcaag cacctctgga agtgcagtgt ggaacatcat
 180
 acatttttta gaatgccaga aatgaatcc aattcactgt caagaaaact cagcaagttt
 240
 ggatccatac gttataagca ccgtacagt ggcaggacag ctttgcaaat gagccgagat
 300
 ctttctattc agcttccccg gcctgatcag aatgtgacaa gaagtcgaag caagacttac
 360

cctaagcgaa tagcacaac acagccagct gaatcaaaca ccatcagtag gataactgca
 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
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 660
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 720
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 780
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 840
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 900
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 960
 tggaagcaca ttcaaaaaga acttgtggat ccatccggat tgtccgaaga acaattaaaa
 1020
 gagattccat aactaaaaat agagtgagtg cctttcagaa tcttctcacc aaagctttat
 1080
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 1140
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 1320
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<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

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Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
		20						25				30			
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35					40					45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
	50					55				60					
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

65					70					75				80	
Gly	Ser	Ile	Arg	Tyr	Lys	His	Arg	Tyr	Ser	Gly	Arg	Thr	Ala	Leu	Gln
					85				90					95	
Met	Ser	Arg	Asp	Leu	Ser	Ile	Gln	Leu	Pro	Arg	Pro	Asp	Gln	Asn	Val
			100					105					110		
Thr	Arg	Ser	Arg	Ser	Lys	Thr	Tyr	Pro	Lys	Arg	Ile	Ala	Gln	Thr	Gln
			115				120					125			
Pro	Ala	Glu	Ser	Asn	Thr	Ile	Ser	Arg	Ile	Thr	Ala	Asn	Met	Glu	Asn
			130			135					140				
Gly	Glu	Asn	Glu	Gly	Thr	Ile	Lys	Ile	Ile	Ala	Pro	Ser	Pro	Val	Lys
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Ser	Phe	Lys	Lys	Ala	Lys	Asn	Glu	Asn	Ser	Pro	Asp	Thr	Gln	Arg	Ser
			165					170					175		
Lys	Ser	His	Ala	Pro	Trp	Glu	Glu	Asn	Gly	Pro	Gln	Ser	Gly	Leu	Tyr
			180					185					190		
Asn	Ser	Pro	Ser	Asp	Arg	Thr	Lys	Ser	Pro	Lys	Phe	Pro	Tyr	Thr	Arg
			195				200					205			
Arg	Arg	Asn	Pro	Ser	Cys	Gly	Ser	Asp	Asn	Asp	Ser	Val	Gln	Pro	Val
			210			215					220				
Arg	Arg	Arg	Lys	Ala	His	Asn	Ser	Gly	Glu	Asp	Ser	Asp	Leu	Lys	Gln
225					230					235				240	
Arg	Arg	Arg	Ser	Arg	Ser	Arg	Cys	Asn	Thr	Ser	Ser	Gly	Ser	Glu	Ser
			245					250					255		
Glu	Asn	Ser	Asn	Arg	Glu	His	Arg	Lys	Lys	Arg	Asn	Arg	Ile	Arg	Gln
			260					265					270		
Glu	Asn	Asp	Met	Val	Asp	Ser	Ala	Pro	Gln	Trp	Glu	Ala	Val	Leu	Arg
			275				280					285			
Arg	Gln	Lys	Glu	Lys	Asn	Gln	Ala	Asp	Pro	Asn	Asn	Arg	Arg	Ser	Arg
			290			295					300				
His	Arg	Ser	Arg	Ser	Arg	Ser	Pro	Asp	Ile	Gln	Ala	Lys	Glu	Glu	Leu
305					310					315				320	
Trp	Lys	His	Ile	Gln	Lys	Glu	Leu	Val	Asp	Pro	Ser	Gly	Leu	Ser	Glu
			325					330					335		
Glu	Gln	Leu	Lys	Glu	Ile	Pro	Tyr	Thr	Lys	Ile	Glu				
			340					345							

<210> 3861

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

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120

ggagagggca gctactccaa ggtgaagggt gccacatcca agaagtacaa gggtagcgtg

180

gccatcaagg tgggtgaccg gcggcgagcg ccccggaact tcgtcaacaa gttcctgccg

240

cgagagctgt ccattctgcg gggcgtgcga caccgcaca tcgtgcacgt cttcgagttc

300

atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg

360

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<210> 3862
<211> 210
<212> PRT
<213> Homo sapiens
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<210> 3863
<211> 341
<212> DNA
<213> Homo sapiens
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<400> 3863

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 120
 agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cagcaggttc
 180
 ttctggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgagtc
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
 300
 tttatcaatc gcttgggaca agccattgaa ttttcggaga g
 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
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Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
			20					25					30		
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
		35				40					45				
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55				60					
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65				70				75						80	
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
			85					90					95		
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
			100					105							

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 120
 gagacctatg tgaagcccac ttaattttct gaaacttcac atcatgtacc ttcattgtaa
 180
 tattctgaca cttgtttcat gcagccatac cagtcacaac tttaaatttt tagtcagact
 240
 ttgctcaciaa ggtttcagga taattaatac aaatgggttg ggccagccat cacacagcag
 300
 tctcctatctt acttcactac aactacagct ttcattcttc attacattac tttttctgag
 360

tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
 420
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 480
 tcaaggtcag ca
 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 Ser His Asn Phe Lys Phe Leu Val Arg Leu Cys Ser Gln Gly Phe Arg
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 120
 ctggacagtg caaagcgatc ggaggacagg gagaagggag ctctgattga ggagctctta
 180
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 240
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 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggcctgagg
 360
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 420
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 480
 ctgcagggaa gaagcgaaga gctggagcgg agagttgctc agcttcaaag gcagatcgag
 540
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata
 600

cgacagttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc
 660
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 720
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 780
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 840
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 900
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 960
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 1020
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 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

Thr	Arg	Glu	Gly	Glu	Leu	Arg	Lys	Asn	Leu	Glu	Glu	Leu	Phe	Gln	Val
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Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
		20						25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
	35						40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
	50					55				60					
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65				70					75				80		
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
			85					90				95			
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
	100						105				110				
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
	115					120					125				
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
	130					135					140				
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145				150					155				160		
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
		165						170					175		
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
	180						185					190			
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
	195					200					205				
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
	210					215					220				
Glu	Asn	Glu	Leu	Glu	Ala	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln
225				230					235				240		
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

	245		250		255
Glu Gln Leu Arg Arg Leu Lys Asn Glu Met Glu Asn Glu Arg Trp His					
	260		265		270
Leu Gly Lys Thr Ile Glu Lys Leu Gln Lys Glu Met Ala Asp Ile Val					
	275		280		285
Glu Ala Ser Arg Thr Ser Thr Leu Glu Leu Gln Asn Gln Leu Asp Glu					
	290		295		300
Tyr Lys Glu Lys Asn Arg Arg Glu Leu Ala Glu Met Gln Arg Gln Leu					
305		310		315	320
Lys Glu Lys Thr Leu Glu Ala Glu Lys Ser Arg Leu Thr Ala Met Lys					
	325		330		335
Met Gln Asp Glu Met Arg Leu Met					
	340				

<210> 3869

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3869

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120
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180
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240
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300
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360
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420
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480
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540
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900
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1020

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 1080
 gtcgagctgg atggagtgcc ggtgtctccg ggctggtggg ggagaggctg tgggcggcca
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<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

Met	Ala	Ala	Glu	Ala	Phe	Pro	Ser	Asp	Lys	Leu	Gln	Ser	Ala	Gln	Asp
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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
		20					25					30			
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
	35					40					45				
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
	50					55				60					
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65				70					75					80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
				85				90						95	
Tyr	Glu	Gly	Lys												
			100												

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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 120
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 180
 taggctgagg gaaaatacaa agatgatcct gttgatctcc gccttgatat tgaacgtcgt
 240
 aaaaaacata aggagagaga tcttaaaca ggtaaatcga gagaatcagt ggattcccga
 300
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 360
 aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc
 420
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 473

<210> 3872

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3872

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 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
 50 55 60
 Asp Leu
 65

<210> 3873

<211> 869

<212> DNA

<213> Homo sapiens

<400> 3873

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 180
 agccaagagt cctccacttc cagcttctcc tccatgtcag ccggctcaag gcaggaggag
 240
 accaagaagg actacagaga ggtagaaaaa cttttgagag cagttgctga tggagatcta
 300
 gaaatgggtgc gttacctgtt ggaatggaca gaggaggacc tggaggatgc ggaggacact
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 420
 gctcagaaga ggctggcgaa ggctcctgcc agtgggcttg gtgtgaacgt gaccagccag
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 gacggctcct ccccgctgca tgcgcgcgcc ctgcacggcc gggcggacct catccgcctc
 540
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 660
 cccaataaga aggacctcag tggaaacacg cccctcattt acgctgctc cggtggccat
 720
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 780
 ggcaacacag cgctgcacga ggctgtgatt gaaaagcacg tcttcgtggt agagctgctt
 840
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 869

<210> 3874

<211> 289

<212> PRT

<213> Homo sapiens

<400> 3874

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 20 25 30
 Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
 35 40 45
 Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
 50 55 60
 Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
 65 70 75 80
 Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
 85 90 95
 Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
 100 105 110
 Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
 115 120 125
 Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
 130 135 140
 Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
 145 150 155 160
 Asp Gly Ser Ser Pro Leu His Val Ala Leu His Gly Arg Ala Asp
 165 170 175
 Leu Ile Arg Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
 180 185 190
 Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
 195 200 205
 Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
 210 215 220
 Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
 225 230 235 240
 Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
 245 250 255
 Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
 260 265 270
 His Val Phe Val Val Glu Leu Leu Leu Leu His Gly Ala Ser Val Arg
 275 280 285
 Cys

<210> 3875

<211> 2640

<212> DNA

<213> Homo sapiens

<400> 3875

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360
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420
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480
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<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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Pro	Pro	Ala	Ala	Leu	Gly	Leu	Val	Ser	Ser	Arg	Thr	Ser	Gly	Ala	Val
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Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg	Gly
			50				55				60				
His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu	Gln
65					70					75				80	
Asn	Asp	Leu	Gln	Ala	Asn	Ile	Ser	Pro	Glu	Phe	Trp	Asn	Ala	Ile	Ser
			85						90					95	
Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu	Leu
			100						105					110	
Asp	Ala	Phe	Gly	Leu	Leu	Glu	Ser	Arg	Leu	Asp	Pro	Tyr	Leu	Arg	Ser
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	165	170
		175
Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu		
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Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala		
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Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys		
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Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe		
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His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val		
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		255
Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg		
	260	265
		270
Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu		
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		285
Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe		
	290	295
		300
Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr		
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Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr		
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Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro		
	340	345
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Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr		
	370	375
		380
Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr		
	385	390
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Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile		
	405	410
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Leu Glu Val Ala Cys Glu Pro Ile Arg Arg Tyr Leu Arg Thr Arg Glu		
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Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu		
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Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp		
	465	470
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Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg		
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		495
Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys		
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Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu		
	515	520
		525
His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu		
	530	535
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Leu Lys Leu Arg Phe Gly Glu Ala Pro Met His Phe Cys Glu Val Met		
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Leu Lys Asp Met Ala Asp Ser Arg Arg Ile Asn Ala Asn Ile Arg Glu		
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<210> 3877
<211> 1112
<212> DNA
<213> Homo sapiens
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120
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180
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300
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420
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 aagcgtttgg cagccttggga agcgaggcaa aaagcaaaag aagtgcagaa gaagctgggtc
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 780
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<210> 3878

<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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Gly	Ser	Pro	Tyr	Val	Asn	Gly	Ser	Leu	Gly	Glu	Val	Thr	Pro	Cys	Gln
		20					25						30		
His	Ala	Lys	Lys	Ala	Asn	Gly	Pro	Asn	Tyr	Ile	Gln	Pro	Gln	Lys	Arg
		35					40					45			
Gln	Thr	Thr	Phe	Glu	Ser	Gln	Asp	Arg	Lys	Ala	Val	Ser	Pro	Ser	Ser
		50				55					60				
Ser	Glu	Lys	Arg	Ser	Lys	Asn	Pro	Ile	Ser	Arg	Pro	Leu	Glu	Gly	Lys
65					70				75					80	
Lys	Ser	Leu	Ser	Leu	Ser	Ala	Lys	Thr	His	Asn	Ile	Gly	Phe	Asp	Lys
				85				90						95	
Asp	Ser	Cys	His	Ser	Thr	Thr	Lys	Thr	Glu	Ala	Ser	Gln	Glu	Glu	Arg
		100					105					110			
Ser	Asp	Ser	Ser	Gly	Leu	Thr	Ser	Leu	Lys	Lys	Ser	Pro	Lys	Val	Ser
		115					120					125			
Ser	Lys	Asp	Thr	Arg	Glu	Ile	Lys	Thr	Asp	Phe	Ser	Leu	Ser	Ile	Ser
		130				135					140				
Asn	Ser	Ser	Asp	Val	Ser	Ala	Lys	Asp	Lys	His	Ala	Glu	Asp	Asn	Glu
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Lys	Arg	Leu	Ala	Ala	Leu	Glu	Ala	Arg	Gln	Lys	Ala	Lys	Glu	Val	Gln
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<210> 3879
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<212> DNA
<213> Homo sapiens
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<210> 3880

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3880

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Phe	Leu	His	Arg	Leu	Pro	Ser	Glu	Val	Ser	Ala	Leu	Gln	His	Leu	Lys
		20						25					30		
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
	35					40						45			
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
	50					55					60				
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
65					70					75				80	
Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
			85					90						95	
Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
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<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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<210> 3882

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3882

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Asp	Ser	Gly	Ala	Lys	Gly	Gly	Lys	Val	Lys	Leu	Leu	Gly	Lys	Pro	Val
			20				25					30			
Gln	Met	Pro	Ser	Leu	Asn	Trp	Pro	Glu	Ala	Leu	Pro	Pro	Pro	Pro	Pro

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 Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His
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 Leu Thr Glu Pro Ser Ser Ser Gly Gly Trp Leu Val Thr Pro Ser Arg
 85 90 95
 Arg Glu Thr Pro Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala
 100 105 110
 Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met
 115 120 125
 Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser
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 Pro Leu Ser Val Ser Gln Pro Met Leu Gly Ile Arg Glu Ala Arg Pro
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 Ala Gly Leu Gly Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser
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 Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly
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 Asn Gly Glu Met Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg
 195 200 205
 Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp
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 225 230 235 240
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<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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<210> 3884

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3884

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<211> 1671

<212> DNA

<213> Homo sapiens

<400> 3885

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<211> 277

<212> PRT

<213> Homo sapiens

<400> 3886

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Thr	Ala	Ala	Lys	Phe	Lys	Leu	Thr	Arg	His	Gln	Ala	Val	Thr	Gly	Ser
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Arg	Asp	Arg	Thr	Val	Lys	Glu	Trp	Asp	Leu	Gly	Arg	Ala	Tyr	Cys	Ser
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<210> 3887

<211> 5612

<212> DNA

<213> Homo sapiens

<400> 3887

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<211> 1230

<212> PRT

<213> Homo sapiens

<400> 3888

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Phe	His	Pro	His	Val	Gln	Ala	Leu	Val	Pro	Pro	Val	Val	Ala	Cys	Val	
	515						520					525				
Gly	Asp	Pro	Phe	Tyr	Lys	Ile	Thr	Ser	Glu	Ala	Leu	Leu	Val	Thr	Gln	
	530					535					540					
Gln	Leu	Val	Lys	Val	Ile	Arg	Pro	Leu	Asp	Gln	Pro	Ser	Ser	Phe	Asp	
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Ala	Thr	Pro	Tyr	Ile	Lys	Asp	Leu	Phe	Thr	Cys	Thr	Ile	Lys	Arg	Leu	
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Pro Asn Thr Leu Gln Ile Phe	Leu Glu Arg Leu Lys Asn Glu Ile Thr	
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Lys Ile Asp Leu Arg Pro Val	Leu Gly Glu Gly Val Pro Ile Leu Ala	640
	645	650
Ser Phe Leu Arg Lys Asn Gln Arg	Ala Leu Lys Leu Gly Thr Leu Ser	655
	660	665
Ala Leu Asp Ile Leu Ile Lys Asn	Tyr Ser Asp Ser Leu Thr Ala Ala	670
	675	680
Met Ile Asp Ala Val Leu Asp	Glu Leu Pro Pro Leu Ile Ser Glu Ser	685
	690	695
Asp Met His Val Ser Gln Met	Ala Ile Ser Phe Leu Thr Thr Leu Ala	700
705	710	715
Lys Val Tyr Pro Ser Ser Leu Ser	Lys Ile Ser Gly Ser Ile Leu Asn	720
	725	730
Glu Leu Ile Gly Leu Val Arg Ser	Pro Leu Leu Gln Gly Gly Ala Leu	735
	740	745
Ser Ala Met Leu Asp Phe Phe Gln	Ala Leu Val Val Thr Gly Thr Asn	750
	755	760
Asn Leu Gly Tyr Met Asp Leu Leu	Arg Met Leu Thr Gly Pro Val Tyr	765
	770	775
Ser Gln Ser Thr Ala Leu Thr His	Lys Gln Ser Tyr Tyr Ser Ile Ala	780
785	790	795
Lys Cys Val Ala Ala Leu Thr Arg	Ala Cys Pro Lys Glu Gly Pro Ala	800
	805	810
Val Val Gly Gln Phe Ile Gln Asp	Val Lys Asn Ser Arg Ser Thr Asp	815
	820	825
Ser Ile Arg Leu Leu Ala Leu Leu	Ser Leu Gly Glu Val Gly His His	830
	835	840
Ile Asp Leu Ser Gly Gln Leu Glu	Leu Lys Ser Val Ile Leu Glu Ala	845
	850	855
Phe Ser Ser Pro Ser Glu Glu Val	Lys Ser Ala Ala Ser Tyr Ala Leu	860
865	870	875
Gly Ser Ile Ser Val Gly Asn Leu	Pro Glu Tyr Leu Pro Phe Val Leu	880
	885	890
Gln Glu Ile Thr Ser Gln Pro Lys	Arg Gln Tyr Leu Leu Leu His Ser	895
	900	905
Leu Lys Glu Ile Ile Ser Ser Ala	Ser Val Val Gly Leu Lys Pro Tyr	910
	915	920
Val Glu Asn Ile Trp Ala Leu Leu	Leu Lys His Cys Glu Cys Ala Glu	925
	930	935
Glu Gly Thr Arg Asn Val Val Ala	Glu Cys Leu Gly Lys Leu Thr Leu	940
945	950	955
Ile Asp Pro Glu Thr Leu Leu Pro	Arg Leu Lys Gly Tyr Leu Ile Ser	960
	965	970
Gly Ser Ser Tyr Ala Arg Ser Ser	Val Val Thr Ala Val Lys Phe Thr	975
	980	985
Ile Ser Asp His Pro Gln Pro Ile	Asp Pro Leu Leu Lys Asn Cys Ile	990
	995	1000
Gly Asp Phe Leu Lys Thr Leu Glu	Asp Pro Asp Leu Asn Val Arg Arg	1005
	1010	1015
Val Ala Leu Val Thr Phe Asn Ser	Ala Ala His Asn Lys Pro Ser Leu	1020

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 Phe Leu Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Lys
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 1125 1130 1135
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 Cys Thr Thr Lys Val Lys Ala Asn Ser Val Lys Gln Glu Phe Glu Lys
 1155 1160 1165
 Gln Asp Glu Leu Lys Arg Ser Ala Met Arg Ala Val Ala Ala Leu Leu
 1170 1175 1180
 Thr Ile Pro Glu Ala Glu Lys Ser Pro Leu Met Ser Glu Phe Gln Ser
 1185 1190 1195 1200
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<210> 3889

<211> 556

<212> DNA

<213> Homo sapiens

<400> 3889

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<210> 3890

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 3890

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Glu	Glu	Asp	Gly	Pro	Val	Leu	Thr	Asp	Glu	Gln	Val	Pro	Asn	Pro	Gly
		20						25					30		
His	Glu	Ala	His	Asp	Gln	Gly	Gly	Trp	Asp	Ala	Arg	Gln	Ser	Ile	Ile
	35						40					45			
Arg	Lys	Val	Val	Asp	Pro	Glu	Thr	Gly	Arg	Thr	Arg	Leu	Ile	Lys	Gly
	50					55					60				
Asp	Gly	Glu	Val	Leu	Glu	Glu	Ile	Val	Thr	Lys	Glu	Arg	His	Arg	Glu
65					70					75				80	
Ile	Asn	Lys	Gln	Ala	Thr	Arg	Gly	Asp	Cys	Leu	Ala	Phe	Gln	Met	Arg
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<210> 3891
 <211> 1687
 <212> DNA
 <213> Homo sapiens

<400> 3891

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840

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<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

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Ser	Pro	Asn	Trp	Gln	His	Gln	Thr	Gly	His	Gly	Thr	Glu	Ser	Ser	Gly
		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
65					70					75				80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
			85					90						95	
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
		100						105					110		
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115					120					125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

130		135		140
Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr				
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Thr Ser Leu				

<210> 3893

<211> 1591

<212> DNA

<213> Homo sapiens

<400> 3893

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 480
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 720
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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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Lys	Leu	Gln	Tyr	Gly	Asp	Pro	Tyr	Tyr	Ser	Tyr	Leu	Asn	Leu	Asn	Thr
		20						25					30		
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
		35					40					45			
Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
	50						55				60				
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65					70					75					80
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
				85					90					95	
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
				100				105					110		
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115						120					125		
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
		130				135						140			
Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
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Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
				165					170					175	
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
			180					185					190		
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195					200						205		
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
		210				215						220			
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
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Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
				245					250					255	
Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

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<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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Leu	Lys	Gln	His	Lys	Glu	Ala	Lys	Arg	Phe	Glu	Ile	Ala	Arg	Ser	Gln
			20					25					30		
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
		35					40					45			
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
	50					55				60					
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
65				70					75					80	
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser	Cys
			85					90					95		
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln	Glu
			100				105						110		
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala	Leu
		115					120					125			
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
	130					135					140				
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys	Asn	Arg
145				150						155				160	
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln	Asp	Pro
			165					170						175	
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly	Asp
		180					185						190		
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala	Leu
	195						200					205			
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Leu	Pro	Ser	Ser	Ser	Gly	Asp	
	210					215				220					
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile	Ala	Ser
225				230					235					240	
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala	Ser	Leu
			245					250					255		
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu	Thr	His
		260					265						270		
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln	Asn	Gly
	275					280						285			
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro	Ala
	290					295					300				
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile	His
305				310					315					320	
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
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340

345

<210> 3897

<211> 366

<212> DNA

<213> Homo sapiens

<400> 3897

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<210> 3898

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3898

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His Pro Arg Phe Val His Glu Trp Lys Ala Met Leu Thr Ala Ala Gln
35          40          45
Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
50          55          60
Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
65          70          75          80
Pro Thr Leu Cys His Cys His Ile Phe Leu Cys Ala Gln Pro Leu Pro
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100          105          110

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<210> 3899

<211> 1092

<212> DNA

<213> Homo sapiens

<400> 3899

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<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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			20					25				30			
Gly	Arg	Ser	Gly	Leu	Glu	Pro	Gly	Thr	Phe	Arg	Lys	Met	Ala	Ala	Ala
			35				40					45			
Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
			50			55					60				
Cys	Asp	Met	Gln	Glu	Lys	Phe	Arg	His	Asn	Ile	Ala	Tyr	Phe	Pro	Gln
65					70					75				80	
Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
				85					90					95	
Val	Pro	Val	Met	Leu	Thr	Glu	Gln	Tyr	Pro	Gln	Gly	Leu	Gly	Pro	Thr

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Val Pro Glu Leu Gly Thr Xaa Gly Pro Ser Ala Ala Gly Gln Asp Leu		
115	120	125
Leu Gln His Gly Ala Cys Leu Gln Gln Glu Leu Asp Ser Arg Pro Gln		
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Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu		
145	150	155
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val		
165	170	175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu		
180	185	190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu		
195	200	205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile		
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Gln Lys Leu Ile Lys Glu Pro Ala Pro Asp Ser Gly Leu Leu Gly Leu		
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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			20					25					30		
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala	Ala
			35				40					45			
Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile	Leu
			50			55				60					
Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro	Phe
65					70					75				80	
Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val	Gln
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Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu	Glu
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Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg	Ile
			115			120						125			
Asp	Ala	Asn	Gln	Glu	Leu	Leu	Ala	Ile	Gly	Leu	Thr	Asn	Met	Leu	Gly
			130			135					140				
Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr	Ala
145					150					155				160	
Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val	Thr
			165					170						175	
Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe	Tyr
			180				185					190			
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Val	Ile	Ile	Met	Ala	Val	Ala	
			195			200					205				
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys	Arg
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Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp	Glu
225					230					235				240	
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met	Leu

				245						250					255				
Leu	His	Ser	Ala	Ala	Arg	Pro	Glu	Thr	Lys	Val	Ser	Glu	Gly	Pro	Val				
			260						265					270					
Leu	Val	Leu	Gln	Pro	Ala	Ser	Gly	Leu	Ser	Phe	Pro	Val	Leu	Cys	Pro				
		275					280					285							
Pro	Leu	Pro	Ala	Val	Gln	Asp	Pro	Lys	Thr	Leu	Ser	Pro	Thr	Leu	Ser				
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Ser	Pro	Gln	Gly	Cys	Arg	His	Leu												
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<210> 3903

<211> 598

<212> DNA

<213> Homo sapiens

<400> 3903

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180
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420
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480
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598

<210> 3904

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3904

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Gly	Glu	Ala	Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu				
		20					25					30							
Val	Ile	Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala				
	35					40					45								
Phe	Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile				
	50				55					60									
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe	Asn				
65				70					75				80						
Leu	Leu	Leu	Arg	Val	Asn	His	Ile	Gly	Pro	Phe	Leu	Leu	Thr	His	Leu				


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Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val Val Val Val
      100              105              110
Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp
      115              120              125
Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
      130              135              140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
      145              150              155              160
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
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Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
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Leu Ala Trp Leu Val Pro Arg
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<210> 3905

<211> 370

<212> DNA

<213> Homo sapiens

<400> 3905

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<210> 3906

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3906

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Asn Ile Gly Gly Asp Phe Asp Val Ala Thr Gly Gln Phe Arg Cys Arg
      35              40              45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
      50              55              60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
      65              70              75              80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

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<210> 3907
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 <212> DNA
 <213> Homo sapiens

<400> 3907
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<210> 3908

<211> 1373

<212> PRT

<213> Homo sapiens

<400> 3908

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 35 40 45
 Thr Lys Arg Leu Lys Met Ser Gly Gly Ala Ser Ala Thr Gly Pro Arg
 50 55 60
 Arg Gly Pro Pro Gly Leu Glu Asp Thr Thr Ser Lys Lys Lys Gln Lys
 65 70 75 80
 Asp Arg Ala Asn Gln Glu Ser Lys Asp Gly Asp Pro Arg Lys Glu Thr
 85 90 95
 Gly Ser Arg Tyr Val Ala Gln Ala Gly Leu Glu Pro Leu Ala Ser Gly
 100 105 110
 Asp Pro Ser Ala Ser Ala Ser His Ala Ala Gly Ile Thr Gly Ser Arg
 115 120 125
 His Arg Thr Arg Leu Phe Phe Pro Ser Ser Ser Gly Ser Ala Ser Thr
 130 135 140
 Pro Gln Glu Glu Gln Thr Lys Glu Gly Ala Cys Glu Asp Pro His Asp
 145 150 155 160
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 165 170 175
 Ala Glu Glu Val Ile Val Lys Leu Arg Val Gly Val Gly Pro Leu Gln
 180 185 190
 Leu Glu Asp Val Asp Ala Ala Phe Thr Asp Thr Asp Cys Val Val Arg
 195 200 205
 Phe Ala Gly Gly Gln Gln Trp Gly Gly Val Phe Tyr Ala Glu Ile Lys
 210 215 220
 Ser Ser Cys Ala Lys Val Gln Thr Arg Lys Gly Ser Leu Leu His Leu
 225 230 235 240
 Thr Leu Pro Lys Lys Val Pro Met Leu Thr Trp Pro Ser Leu Leu Val
 245 250 255
 Glu Ala Asp Glu Gln Leu Cys Ile Pro Pro Leu Asn Ser Gln Thr Cys
 260 265 270
 Leu Leu Gly Ser Glu Glu Asn Leu Ala Pro Leu Ala Gly Glu Lys Ala
 275 280 285
 Val Pro Pro Gly Asn Asp Pro Val Ser Pro Ala Met Val Arg Ser Arg
 290 295 300
 Asn Pro Gly Lys Asp Asp Cys Ala Lys Glu Glu Met Ala Val Ala Ala
 305 310 315 320
 Asp Ala Ala Thr Leu Val Asp Gly Lys Glu Pro Glu Ser Met Val Asn
 325 330 335
 Leu Ala Phe Val Lys Asn Asp Ser Tyr Glu Lys Gly Pro Asp Ser Val
 340 345 350
 Val Val His Val Tyr Val Lys Glu Ile Cys Arg Asp Thr Ser Arg Val
 355 360 365
 Leu Phe Arg Glu Gln Asp Phe Thr Leu Ile Phe Gln Thr Arg Asp Gly

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Trp Gln Val Lys Leu Arg	Asn Leu Ile Glu	Pro Glu Gln Cys Thr Phe
405	410	415
Cys Phe Thr Ala Ser Arg	Ile Asp Ile Cys Leu Arg	Lys Arg Gln Ser
420	425	430
Gln Arg Trp Gly Gly Leu	Glu Ala Pro Ala Ala	Arg Val Gly Gly Ala
435	440	445
Lys Val Ala Val Pro Thr	Gly Pro Thr Pro Leu	Asp Ser Thr Pro Pro
450	455	460
Gly Gly Ala Pro His Pro	Leu Thr Gly Gln Glu	Glu Ala Arg Ala Val
465	470	475
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485	490	495
Val Ala Thr Arg Thr Pro	Met Glu His Val Thr	Pro Lys Pro Glu Thr
500	505	510
His Leu Ala Ser Pro Lys	Pro Thr Cys Met Val	Pro Pro Met Pro His
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Cys Phe Met Asn Ser Val	Ile Gln Ser Leu Ser	Asn Thr Arg Glu Leu
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Arg Asp Phe Phe His Asp	Arg Ser Phe Glu Ala	Glu Ile Asn Tyr Asn
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Asn Pro Leu Gly Thr Gly	Gly Arg Leu Ala Ile	Gly Phe Ala Val Leu
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Leu Arg Ala Leu Trp Lys	Gly Thr His His Ala	Phe Gln Pro Ser Lys
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Gln His Asp Ala Gln Glu	Phe Met Ala Phe Leu	Leu Asp Gly Leu His
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Glu Asp Leu Asn Arg Ile	Gln Asn Lys Pro Tyr	Thr Glu Thr Val Asp
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Ser Asp Gly Arg Pro Asp	Glu Val Ala Glu Glu	Ala Trp Gln Arg
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His Lys Met Arg Asn Asp	Ser Phe Ile Val Asp	Leu Phe Gln Gly Gln
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Val Leu Pro Val Phe Tyr	Phe Ala Arg Glu Pro	His Ser Lys Pro Ile
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Leu Asp Ser Leu Ser Gln	Ser Val His Val Lys	Pro Glu Asn Leu Arg
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His Ser Leu Asp Thr Val	Ser Pro Ser Asp Thr	Leu Leu Cys Phe Glu

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<212> DNA

<213> Homo sapiens

<400> 3909

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<213> Homo sapiens

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<213> Homo sapiens

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			20					25					30		
Gly	His	Asp	Phe	Pro	Phe	Thr	Ile	Asn	Asn	Gly	Thr	Gly	Trp	Ile	Ser
		35					40					45			
Val	Ala	Ala	Glu	Leu	Asp	Arg	Glu	Glu	Val	Asp	Phe	Tyr	Ser	Phe	Gly
		50				55					60				
Val	Glu	Ala	Arg	Asp	His	Gly	Thr	Pro	Ala	Leu	Thr	Ala	Ser	Ala	Ser
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Val	Ser	Val	Thr	Val	Leu	Asp	Val	Asn	Asp	Asn	Asn	Pro	Thr	Phe	Thr
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Gln	Pro	Glu	Tyr	Thr	Val	Arg	Leu	Asn	Glu	Asp	Ala	Ala	Val	Gly	Thr
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Thr	Tyr	Gln	Ile	Thr	Ser	Gly	Asn	Thr	Arg	Asn	Arg	Phe	Ser	Ile	Thr
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His	Arg	Pro	Val	Phe	Gln	Ser	Ser	His	Tyr	Thr	Val	Asn	Val	Asn	Glu
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Asp	Thr	Gly	Glu	Asn	Ala	Arg	Ile	Thr	Tyr	Phe	Met	Glu	Asp	Ser	Ile
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Pro	Gln	Phe	Arg	Ile	Asp	Ala	Asp	Thr	Gly	Ala	Val	Thr	Thr	Gln	Ala
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Tyr	Gln	Gly	Ser	Val	Tyr	Glu	Asp	Val	Pro	Pro	Phe	Thr	Ser	Val	Leu		
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Ser	Thr	Ser	Gly	Ile	Val	Arg	Thr	Leu	Arg	Arg	Leu	Asp	Arg	Glu	Asn		
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Val	Ala	Gln	Tyr	Val	Leu	Arg	Ala	Tyr	Ala	Val	Asp	Lys	Gly	Met	Pro		
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Pro	Ala	Arg	Thr	Pro	Met	Glu	Val	Thr	Val	Thr	Val	Leu	Asp	Val	Asn		
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Glu	Asn	Ser	Pro	Ile	Gly	Leu	Ala	Val	Ala	Arg	Val	Thr	Ala	Thr	Asp		
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Ala	Leu	Val	Asp	Leu	Asp	Tyr	Glu	Asp	Arg	Pro	Glu	Tyr	Val	Leu	Val		
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Ile	Gln	Ala	Thr	Ser	Ala	Pro	Leu	Val	Ser	Arg	Ala	Thr	Val	His	Val		
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Ile	Leu	Phe	Asn	Asn	Tyr	Val	Thr	Asn	Arg	Ser	Ser	Ser	Phe	Pro	Gly		
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Gly	Ala	Ile	Gly	Arg	Val	Pro	Ala	His	Asp	Pro	Asp	Ile	Ser	Asp	Ser		
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Phe Lys Cys Asp Cys Pro Ser Gly Asp Phe Glu Lys Pro Tyr Cys Gln		
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Leu Arg Gln Arg Phe His Phe Thr Leu Ala Leu Ser Phe Ala Thr Lys		
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Glu Arg Asp Gly Leu Leu Leu Tyr Asn Gly Arg Phe Asn Glu Lys His		
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Ser Leu Val Ala Trp His Gly Leu Ser Leu Pro Ile Ser Gln Pro Trp		
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Trp Gly Val Pro Ala Phe Ile Thr Gly Leu Ala Val Gly Leu Asp Pro		
1970	1975	1980
Glu Gly Tyr Gly Asn Pro Asp Phe Cys Trp Leu Ser Ile Tyr Asp Thr		

1985	1990	1995	2000
Leu Ile Trp Ser Phe	Ala Gly Pro Val	Ala Phe Ala Val	Ser Met Ser
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Val Phe Leu Tyr Ile	Leu Ala Ala Arg	Ala Ser Cys Ala	Ala Gln Arg
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Gln Gly Phe Glu Lys	Lys Gly Pro Val	Ser Gly Leu Gln	Pro Ser Phe
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Ala Val Leu Leu Leu	Leu Ser Ala Thr	Trp Leu Leu Ala	Leu Leu Ser
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Val Asn Ser Asp Thr	Leu Leu Phe His	Tyr Leu Phe Ala	Thr Cys Asn
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Tyr Ile Pro Phe Leu	Leu Arg Glu Glu	Ser Ala Leu Asn	Pro Gly Gln
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Gly Pro Pro Gly Leu	Gly Asp Pro Gly	Ser Leu Phe Leu	Glu Gly Gln
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Asp Gln Gln His Asp	Pro Asp Thr Asp	Ser Asp Ser Asp	Leu Ser Leu
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Gln Gly Trp Asp Ser	Leu Leu Gly Pro	Gly Ala Glu Arg	Leu Pro Leu
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His Ser Thr Pro Lys	Asp Gly Gly Pro	Gly Pro Gly Lys	Ala Pro Trp
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2275	2280	2285	
Pro Glu Glu Arg Leu	Arg Glu Asn Gly	Asp Ala Leu Ser	Arg Glu Gly
2290	2295	2300	
Ser Leu Gly Pro Leu	Pro Gly Ser Ser	Ala Gln Pro His	Lys Gly Ile
2305	2310	2315	2320
Leu Lys Lys Lys Cys	Leu Pro Thr Ile	Ser Glu Lys Ser	Ser Leu Leu
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Arg Leu Pro Leu Glu	Gln Cys Thr Gly	Ser Ser Arg Gly	Ser Ser Ala
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Ser Leu Gln Glu Gln	Leu Asn Gly Val	Met Pro Ile Ala	Met Ser Ile
2370	2375	2380	
Lys Ala Gly Thr Val	Asp Glu Asp Ser	Ser Gly Ser Glu	Phe Leu Phe
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2405			

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<211> 5237

<212> DNA

<213> Homo sapiens

<400> 3913

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<211> 1435

<212> PRT

<213> Homo sapiens

<400> 3914

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Arg	Leu	Asn	His	Leu	Ser	Phe	Ala	Glu	Leu	Leu	Lys	Pro	Phe	Ser	Arg
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Leu	Thr	Ser	Glu	Val	His	Met	Arg	Asp	Pro	Asn	Asn	Gln	Leu	His	Val
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Ile	Lys	Asn	Leu	Lys	Ile	Ala	Val	Ser	Asn	Ile	Val	Thr	Gln	Pro	Pro
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Gln	Pro	Gly	Ala	Ile	Arg	Lys	Leu	Leu	Asn	Asp	Val	Val	Ser	Gly	Ser
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Gln	Pro	Ala	Glu	Gly	Leu	Val	Ala	Asn	Val	Ile	Thr	Ala	Gly	Asp	Tyr
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Asp	Leu	Asn	Ile	Ser	Ala	Thr	Thr	Pro	Trp	Phe	Glu	Ser	Tyr	Arg	Glu
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Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
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Tyr	Leu	Ala	Cys	Met	Leu	Val	Ala	Ser	Ser	Ser	Glu	Ala	Glu	Pro	Val
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Glu	Gln	Phe	Ser	Lys	Leu	Ser	Gln	Glu	Gln	His	Arg	Ile	Gln	His	Asn
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Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
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Tyr	Val	Leu	Leu	His	Asp	Val	Ser	Ala	Gly	Asp	Glu	Gln	Arg	Ala	Glu
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Ser	Ile	Tyr	Glu	Glu	Met	Lys	Gln	Lys	Tyr	Gly	Thr	Gln	Gly	Cys	Tyr

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Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
	245	250
Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
	260	265
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		270
	275	280
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
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Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		300
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Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
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Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
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Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		350
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Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		365
	370	375
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		380
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Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		400
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Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
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Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		430
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Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		445
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Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		460
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Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
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Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
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Leu Lys Ser Gln Ser Lys Tyr Ser Glu Ala Ala Ala Leu Leu Ile Arg		510
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Leu Thr Ser Glu Asp Ser Asp Leu Arg Ser Ala Leu Leu Leu Glu Gln		525
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Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		540
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Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		560
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Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
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Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		590
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Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		605
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Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		620
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Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

3076

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Asn Glu Gln Ile Ile Ser Ser Ala Ser Pro Cys Ala Asp Phe Phe Tyr		
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Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr		
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Val Ser Ser Arg Pro Ser Val Glu Gln Leu Ser Ser Leu Ile Lys Thr		
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Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser		
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Leu Cys Leu Val Pro Val Thr Leu Leu Leu Ser Asn Cys Ser Lys Ala		
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Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 3916

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Lys	Ala	Ser	Pro	Asp	Met	Asp	Gly	Tyr	Pro	Ala	Leu	Lys	Val	Asp	Lys
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Glu	Thr	Asn	Thr	Glu	Thr	Pro	Ala	Pro	Ser	Pro	Thr	Val	Val	Arg	Pro
		115					120						125		
Lys	Asp	Arg	Arg	Val	Gly	Thr	Pro	Ser	Gln	Gly	Pro	Phe	Leu	Arg	Gly
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Ser	Thr	Ile	Ile	Arg	Ser	Lys	Thr	Phe	Ser	Pro	Gly	Pro	Gln	Ser	Gln
145					150					155					160
Tyr	Val	Cys	Arg	Leu	Asn	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Ser
			165					170						175	
Lys	Lys	Pro	Pro	Phe	Val	Arg	Asn	Ser	Leu	Glu	Arg	Arg	Ser	Val	Arg
		180						185					190		
Met	Lys	Arg	Pro	Ser	Pro	Pro	Pro	Gln	Pro	Ser	Ser	Val	Lys	Ser	Leu
		195					200					205			
Arg	Ser	Glu	Arg	Leu	Ile	Arg	Thr	Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu
	210					215					220				
Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
225					230					235					240
Leu	Lys	Glu	Leu	Lys	Glu	Gln	Leu	Glu	Gln	Ala	Lys	Ser	His	Gly	Glu
			245						250					255	
Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
		260						265					270		
Leu	Arg	Met	Leu	Glu	Lys	Arg	Gln	Met	Asp	Arg	Ala	Glu	His	Lys	Gly
		275					280					285			
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
	290					295					300				
Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
305					310					315					320
Arg	Glu	Lys	Met	Ala	Phe	Phe	Thr	Arg	Pro	Arg	Met	Asn	Ile	Pro	Ala

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Leu Ser Ala Asp Asp Val
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330

335

<210> 3917
<211> 597
<212> DNA
<213> Homo sapiens

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180
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240
gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg
300
cttctgggac taaaagataa agaggggtac acatctttct ggaatgactg catatcatca
360
ggcctgcgag ggggcatcct gatagagctg gccatgcggg gtcgaatcta tctggaaccc
420
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca
480
acaggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa
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597

<210> 3918
<211> 152
<212> PRT
<213> Homo sapiens

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Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
115 120 125
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130 135 140
 Glu Thr Trp Asn Pro Phe Lys Leu
 145 150

<210> 3919
 <211> 1278
 <212> DNA
 <213> Homo sapiens

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 180
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 360
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 420
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 480
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 960
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 1020
 aagcagagca accaagatct ggagaccctc agtgaggagc tgatcagaga gaaggagcag
 1080
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 1140
 caggaaaagg accacctcaa ccgagccatg tggctcgtgc gggagaggtc gcaggtcagc
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 1260
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 1278

<210> 3920

<211> 426

<212> PRT

<213> Homo sapiens

<400> 3920

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 20 25 30
 Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
 35 40 45
 Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
 50 55 60
 Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
 65 70 75 80
 Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
 85 90 95
 Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
 100 105 110
 Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
 115 120 125
 Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
 130 135 140
 Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
 145 150 155 160
 Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
 165 170 175
 Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
 180 185 190
 Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
 195 200 205
 Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
 210 215 220
 Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
 225 230 235 240
 Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
 245 250 255
 Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
 260 265 270
 Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
 275 280 285
 Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
 290 295 300
 Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
 305 310 315 320
 Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
 325 330 335
 Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
 340 345 350
 Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
 355 360 365
 Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

370	375	380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser		
385	390	395
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His		400
	405	410
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu		415
	420	425

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 <212> DNA
 <213> Homo sapiens

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 120
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 360
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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 3922
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35 40 45
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
50 55 60
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
65 70 75 80
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
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Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala
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His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile
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<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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 120
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 240
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 420
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 480
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 720
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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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Lys	Pro	Leu	Val	Ala	Val	Asn	Thr	Arg	Leu	Ser	Gly	Gly	Gln	Val	Leu
			20					25					30		
Ser	Glu	Tyr	Thr	Gly	Pro	Thr	Ser	Ala	Asp	Leu	Asp	His	Phe	Pro	Ser
		35				40					45				
Val	Ser	Gln	Thr	Lys	Ala	Glu	Gln	Asp	Ser	Asp	Asn	Lys	Ser	Ser	Thr
	50					55					60				
Glu	Ile	Pro	Leu	Glu	Thr	Cys	Cys	Ser	Ser	Glu	Leu	Lys	Gly	Gly	Gly
65				70						75				80	
Ser	Gly	Thr	Ser	Leu	Glu	Arg	Glu	Gln	Phe	Glu	Gly	Leu	Gly	Ser	Thr
			85					90					95		
Pro	Asp	Ala	Lys	Leu	Asp	Lys	Thr	Cys	Ile	Ser	Arg	Ala	Met	Lys	Ile
		100					105					110			
Thr	Thr	Val	Asn	Ser	Val	Leu	Pro	Gln	Asn	Ser	Val	Leu	Gly	Gly	Val

115	120	125
Leu Lys Thr Lys Gln Gln Leu Lys Thr Leu Asn His Phe Asp Leu Thr		
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Asn Gly Val Leu Val Glu Ser Leu Ser Glu Glu Pro Leu Pro Ser Leu		
145	150	155
Arg Arg Gly Arg Lys Arg His Cys Lys Thr Lys His Leu Glu Gln Asn		
165	170	175
Gly Ser Leu Lys Lys Leu Arg Gln Thr Ser Gly Glu Val Gly Leu Ala		
180	185	190
Pro Thr Asp Pro Val Leu Arg Glu Met Glu Gln Lys Leu Gln Gln Glu		
195	200	205
Glu Glu Asp Arg Gln Leu Ala Leu Gln Leu Gln Arg Met Phe Asp Asn		
210	215	220
Glu Arg Arg Thr Val Ser Arg Arg Lys Gly Ser Val Asp Gln Tyr Leu		
225	230	235
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<210> 3925

<211> 3296

<212> DNA

<213> Homo sapiens

<400> 3925

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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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	20						25				30				
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
	35					40					45				
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
	50					55				60					
Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
	65				70				75					80	
Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
		85						90					95		
Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
		100						105					110		
Asp	Arg	Ala	Glu	Tyr	Leu	Gly	Ser	Cys	Leu	Leu	His	Lys	Gly	Tyr	Lys
		115				120						125			
Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
	130					135				140					
Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
	145				150				155					160	
Pro	Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Glu	Ala	Ile	Val	His	Ile	Val	Asn

165 170 175
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 180 185 190
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 195 200 205
 Ile Ile Leu Met Asp Pro Phe Asp Asp Asp Leu Lys Gln Arg Gly Glu
 210 215 220
 Lys Ser Gly Ile Glu Ile Leu Ser Leu Tyr Asp Ala Glu Asn Leu Asp
 225 230 235 240
 Lys Glu His Phe Arg Lys Pro Val Pro Pro Ser Pro Glu Asp Leu Ser
 245 250 255
 Val Ile Cys Phe Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly Ala Met
 260 265 270
 Ile Thr His Gln Asn Ile Val Ser Asn Ala Ala Ala Phe Leu Lys Cys
 275 280 285
 Val Glu His Ala Tyr Glu Pro Thr Pro Asp Asp Val Ala Ile Ser Tyr
 290 295 300
 Leu Pro Leu Ala His Met Phe Glu Arg Ile Val Gln Ala Val Val Tyr
 305 310 315 320
 Ser Cys Gly Ala Arg Val Gly Phe Phe Gln Gly Asp Ile Arg Leu Leu
 325 330 335
 Ala Asp Asp Met Lys Thr Leu Lys Pro Thr Leu Phe Pro Ala Val Pro
 340 345 350
 Arg Leu Leu Asn Arg Ile Tyr Asp Lys Val Gln Asn Glu Ala Lys Thr
 355 360 365
 Pro Leu Lys Lys Phe Leu Leu Lys Leu Ala Val Ser Ser Lys Phe Lys
 370 375 380
 Glu Leu Gln Lys Gly Ile Ile Arg His Asp Ser Phe Trp Asp Lys Leu
 385 390 395 400
 Ile Phe Ala Lys Ile Gln Asp Ser Leu Gly Gly Arg Val Arg Val Ile
 405 410 415
 Val Thr Gly Ala Ala Pro Ile Ser Thr Pro Val Leu Thr Phe Phe Arg
 420 425 430
 Ala Ala Met Gly Cys Trp Val Phe Glu Ala Tyr Gly Gln Thr Glu Cys
 435 440 445
 Thr Gly Gly Cys Thr Phe Thr Leu Pro Gly Asp Trp Thr Ser Gly His
 450 455 460
 Val Gly Val Pro Leu Ala Cys Asn Tyr Val Lys Leu Glu Asp Val Ala
 465 470 475 480
 Asp Met Asn Tyr Phe Thr Val Asn Asn Glu Gly Glu Val Cys Ile Lys
 485 490 495
 Gly Thr Asn Val Phe Lys Gly Tyr Leu Lys Asp Pro Glu Lys Thr Gln
 500 505 510
 Glu Ala Leu Asp Ser Asp Gly Trp Leu His Thr Gly Asp Ile Gly Arg
 515 520 525
 Trp Leu Pro Asn Gly Thr Leu Lys Ile Ile Asp Arg Lys Lys Asn Ile
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 Phe Lys Leu Ala Gln Gly Glu Tyr Ile Ala Pro Glu Lys Ile Glu Asn
 545 550 555 560
 Ile Tyr Asn Arg Ser Gln Pro Val Leu Gln Ile Phe Val His Gly Glu
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 Ser Leu Arg Ser Ser Leu Val Gly Val Val Val Pro Asp Thr Asp Val
 580 585 590
 Leu Pro Ser Phe Ala Ala Lys Leu Gly Val Lys Gly Ser Phe Glu Glu

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Lys Ile Gly Lys Glu Ser Gly Leu Lys Thr Phe Glu Gln Val Lys Ala		
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Ile Phe Leu His Pro Glu Pro Phe Ser Ile Glu Asn Gly Leu Leu Thr		
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Pro Thr Leu Lys Ala Lys Arg Gly Glu Leu Ser Lys Tyr Phe Arg Thr		
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<210> 3927

<211> 3197

<212> DNA

<213> Homo sapiens

<400> 3927

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<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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Asp	Ser	Ser	Ser	Arg	Arg	Arg	Arg	Ser	Cys	Cys	Thr	Gly	Ser	Leu	Gly
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Pro	Met	Pro	Arg	Leu	Pro	Ser	Leu	Trp	Pro	Leu	Ser	Leu	Pro	Leu	Arg
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Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100					105					110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
			115				120					125			
Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
			130				135					140			
Ala	Lys	Gly	Ile	Ser	Lys	Arg	Arg	His	Phe	Leu	Pro	Ala	Pro	Ala	Leu
145					150				155					160	
Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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Thr	Leu	Ala	Ile												
			180												

<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

<400> 3929

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<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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		20						25					30		
Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
	35					40					45				
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
	50				55					60					
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
65				70					75					80	
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
			85					90					95		
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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<210> 3932
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<400> 3932
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 35 40 45
 Ser Gly Ser Ala Ile Met Ala Pro Ala Pro Phe Arg Ser Gln Ser Thr
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 Arg Ser Ser Ile Glu Asp Asp Phe Asn Tyr Gly Ser Ser Val Ala Ser
 65 70 75 80
 Ala Thr Val His Ile Arg Met Ala Phe Leu Arg Lys Val Tyr Ser Ile
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 Tyr Phe Glu Ser Val Arg Thr Phe Val His Glu Ser Pro Ala Leu Ile
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 Asn Arg His Lys Tyr Pro Leu Asn Leu Tyr Leu Leu Phe Gly Phe Thr
 145 150 155 160
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 Leu Thr Val Tyr Thr Leu Gln Ser Lys Lys Asp Phe Ser Lys Phe Gly
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 225 230 235 240
 Gly Ala Leu Leu Phe Cys Gly Phe Ile Ile Tyr Asp Thr His Ser Leu
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<212> DNA

<213> Homo sapiens

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2700
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2880
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2940
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3120

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 3180
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 3240
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 3480
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 3540
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 3600
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 3660
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 3720
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 3780
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 3840
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 3900
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 3960
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 4080
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<210> 3934

<211> 130

<212> PRT

<213> Homo sapiens

<400> 3934

Thr	Arg	Arg	Ser	Glu	Val	Asn	Ala	Ile	Ala	Asn	Pro	Pro	Asn	Pro	Leu
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Pro	Ser	Arg	Arg	Ala	His	Ser	Leu	Thr	Thr	Ala	Gly	Ser	Pro	Asn	Leu
			20					25					30		
Ala	Ala	Gly	Thr	Ser	Ser	Pro	Ile	Arg	Pro	Val	Ser	Ser	Pro	Val	Leu
		35				40					45				
Ser	Ser	Ser	Asn	Lys	Ser	Pro	Ser	Ser	Ala	Trp	Ser	Ser	Ser	Ser	Trp
		50				55				60					
His	Gly	Arg	Ile	Lys	Gly	Gly	Met	Lys	Gly	Phe	Gln	Ser	Phe	Met	Val
65				70					75					80	
Ser	Asp	Ser	Asn	Met	Ser	Phe	Val	Glu	Phe	Val	Glu	Leu	Phe	Lys	Ser
			85					90					95		
Phe	Ser	Val	Arg	Ser	Arg	Lys	Asp	Leu	Lys	Asp	Leu	Phe	Asp	Xaa	Leu

	100		105		110										
Cys	Ser	Ala	Leu	Gln	Pro	Xaa	Leu	Ala	Pro	Ser	Gln	Pro	His	Ser	Thr
	115		120		125										
Pro	Thr														
	130														

<210> 3935
 <211> 1103
 <212> DNA
 <213> Homo sapiens

<400> 3935
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 120
 aggacacagc agcggccacc atggccacgc ctgggctcca gcagcatcag cagccccag
 180
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 300
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 360
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 420
 cctgtctccg agtcgttcgt gcagcgtgtg taccagccct tcctcaccac ctgcgacggg
 480
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 540
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 600
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 660
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 720
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 780
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 840
 aaggaggggc cccccagggt gggccccaac ccgacaggta aacagccctg gctgtgcctg
 900
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 960
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 1103

<210> 3936
 <211> 265
 <212> PRT

<213> Homo sapiens

<400> 3936

Met Arg Gly Ser Gln Glu Val Leu Leu Met Trp Leu Leu Val Leu Ala
 1 5 10 15
 Val Gly Gly Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val Cys Ala
 20 25 30
 Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val
 35 40 45
 Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
 50 55 60
 Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
 65 70 75 80
 Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
 85 90 95
 Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
 100 105 110
 Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
 115 120 125
 Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
 130 135 140
 Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
 145 150 155 160
 Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
 165 170 175
 Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
 180 185 190
 Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
 195 200 205
 Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
 210 215 220
 Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
 225 230 235 240
 Gly Gly Phe Pro Arg Thr Gly Gly Arg Leu Pro Gly Ala Ser Tyr Gln
 245 250 255
 Pro Arg Arg Gln Lys Cys Pro Val Pro
 260 265

<210> 3937

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3937

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 120
 ttgcgcgcca accatccagt tcttctcca ggccacgttc tcttgcgga aaatgctgat
 180
 ctcatcgca atgctgggcg caggggctgg cgtgggtac gcgctcctcg ttatcgtgac
 240
 cccgggagag cggcggaagc aggaatgct aaaggagatg cactgcagg acccaaggag
 300

cagggaggag gcggccagga cccagcagct attgctggcc actctgcagg aggcagcgac
 360
 cacgcaggag aacgtggcct gngaggaaga actggatggt tggcggcgaa ggcggcgcca
 420
 gcgggaggtc accgtgagac cggacttgcc tccgtgggcg ccggaccttg gcttgggcgc
 480
 aggaatccga ggcagccttt ctcttcgtg ggcccagcgg agagtccgga ccgagatacc
 540
 atgccaggac tctccggggt cctgtgagct gccgtcgggt gagcacgttt cccccaacc
 600
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 720
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 744

<210> 3938

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3938

Pro Pro Ala Gly Ala Ala Phe Ala Ala Asn His Pro Val Leu Pro Pro
 1 5 10 15
 Gly His Val Leu Leu Ala Glu Asn Ala Asp Leu Ser Arg Asn Ala Gly
 20 25 30
 Arg Arg Gly Trp Arg Gly Leu Arg Ala Pro Arg Tyr Arg Asp Pro Gly
 35 40 45
 Arg Ala Ala Glu Ala Gly Asn Ala Lys Gly Asp Ala Thr Ala Gly Pro
 50 55 60
 Lys Glu Gln Gly Gly Gly Gly Gln Asp Pro Ala Ala Ile Ala Gly His
 65 70 75 80
 Ser Ala Gly Gly Ser Asp His Ala Gly Glu Arg Gly Leu Xaa Gly Arg
 85 90 95
 Thr Gly Trp Leu Ala Ala Lys Ala Ala Pro Ala Gly Gly His Arg Glu
 100 105 110
 Thr Gly Leu Ala Ser Val Gly Ala Gly Pro Trp Leu Gly Arg Arg Asn
 115 120 125
 Pro Arg Gln Pro Phe Ser Phe Val Gly Pro Ala Glu Ser Pro Asp Arg
 130 135 140
 Asp Thr Met Pro Gly Leu Ser Gly Val Leu
 145 150

<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

<400> 3939

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 120

ctgaagactg tgaaagaaag ggcaacagac agcgagggag gaagagacag gctggagccc
 180
 ttcttgtaaa cgcaggtgac ctggtgcacg gctgatgggt gttaaatacg aactccaggt
 240
 gataaccact gtctcctgga gcctgtgggt cgccctcctg ctctgctgca agggccctgc
 300
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 360
 taaggaaccc acggtgcgga ggtgtcagga ggaaggtagc agcgtcttga ctttccaccg
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 490

<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

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Thr	Asp	Arg	Gln	Thr	Gly	Lys	Val	Arg	Trp	Lys	His	Thr	Glu	Asp	Glu
			20					25					30		
Arg	Asp	Arg	Gln	Trp	Glu	Ala	Glu	Leu	Lys	Thr	Val	Lys	Glu	Arg	Ala
			35				40					45			
Thr	Asp	Ser	Glu	Gly	Gly	Arg	Asp	Arg	Leu	Glu	Pro	Phe	Leu		
			50			55					60				

<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

<400> 3941

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 120
 aggtgggccc tgccctgtgg ccactgatgt gggaaacctga ggtcacatca gtctgtggac
 180
 tcttgggtta ggtgaccctt ctgccttgag gtctgtctga cacctgggca tgggatccag
 240
 tagtcttgag ctcaactctt tggccatctc cagctgtctc taggggacgt ggctcaggcc
 300
 cgctcctggg gcaggggggtt ggcggtggca tgaggtgggt tggggaggag gacgtgtctc
 360
 cacattgcag ctggcttcct cctgggctga acctccttgt gctttgagac tgacaggaag
 420
 agcagagttg cttcaggtag aggctcggcc caggcccttg gggcaggata acagcagaga
 480
 actcaggtgc ctctggcac agacaggagg acagatggca caggtgagca tccacacact
 540

ccattgccac agggggtatg gcatggccca tgacccatca aagcttccag gtcgggatac
600
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660
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720
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780
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840
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960
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1020
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1080
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1140
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1200
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1380
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1440
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1500
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1560
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1620
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1680
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1740
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1860
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1920
aggtgtcccg ccagcgtcca ggtgcctgcc ctgcctggg ctccctcagg agaggggtgg
1980
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2040
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2077

<210> 3942

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3942

Ala Pro Tyr Phe Pro Glu Gly Ala Pro Gly Leu Gln Gly His Leu Lys
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 Gly Trp Ser Pro Gly Pro Ala Gly Pro Gln Gly Thr Gly Ser Pro Pro
 20 25 30
 Gln Glu Arg Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys
 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met
 65 70 75 80
 Ser Ser Ala Asn Ala His Ser Ala Leu
 85

<210> 3943

<211> 1524

<212> DNA

<213> Homo sapiens

<400> 3943

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 120
 gggaagccgc agccgcagga cgaggacgac gcggaggagg aggaggagga ggatgagctg
 180
 gtggggctag cggactacgg agacgggccc gactcctccg acgccgatcc ggacagcggc
 240
 acagaggagg gagttctgga cttcagtgc cccttcagca ctgaagtga gccgagaatc
 300
 ctgctcatgg gcctgaggag aagcggcaag tcgtctatcc agaaagttgt ctttcacaaa
 360
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 420
 tccaacagct cctttgtcaa ttttcagatt tgggacttcc caggacagat tgactttttt
 480
 gaccctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt
 540
 gagcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaaagcc
 600
 taaaagtta acccagacat gaattttgag gtttttatcc ataaagtga tggctctgtc
 660
 gatgatcaca aatagaaac acagagggac attcatcaaa gggccaatga tgaccttgca
 720
 gatgctggat tagaaaaaat tcacctcagc ttttatctga caagcatata tgatcattca
 780
 atatttgaag cttttagcaa agttgttcag aaactgattc cacaactccc aactctggag
 840
 aatttgctga acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg
 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc
 960
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 1020
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 1080
 gtgctttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa
 1140
 agctttgaaa gaaaagggct aattgactat aattttcatt gcttccggaa ggccattcat
 1200
 gaagtttttg aggtgagaat gaaagtagta aaatctcgaa aggttcagaa tcggctgcag
 1260
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag
 1320
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 1380
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 1500
 aaaaaaaaaa aaaaaaaaaa aaaa
 1524

<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
			35				40					45			
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala	
			50			55				60					
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70					75				80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85					90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
				100				105					110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
			115				120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
			130			135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145				150						155				160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170					175		
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
			180					185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

195	200	205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys		
210	215	220
Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala		
225	230	235
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile		
245	250	255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu		
260	265	270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser		
275	280	285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile		
290	295	300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu		
305	310	315
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly		
325	330	335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala		
340	345	350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr		
355	360	365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg		
370	375	380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His		
385	390	395
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln		
405	410	415
Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg		
420	425	430
Val Leu Leu		
435		

<210> 3945

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3945

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120

cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt

180

tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat

240

ggcggaccgc gaggtgtgct gtttcatcac caaatcctg tgcgcccacg ggggcgcgat

300

ggccctggac gcgtgtctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct

360

gcaggtggcc gggcccgacc gctttgtggt gttggagacc ggccggcgagg ccgggatcac

420

ccgatcggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc

480

ctgcgataac ctgcattctct gcaaactcaa cttgctgggc cggtgcaact attcgagtc
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 600
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgtctc tcctccaaag
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 696

<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

Met Gln Val Ile Ala Gly Ser Leu Ala Val Leu Ala Thr Ala Asp Pro
 1 5 10 15
 Gly Ser Ser Gly Gly His His Arg Ser Gly Asp Pro Gly Leu Ala Ala
 20 25 30
 Gly Leu Gln His His Lys Ala Val Gly Pro Gly His Leu Gln His Leu
 35 40 45
 Thr Glu Leu Arg Leu Arg Gln Arg Asp Leu Leu Glu Gln Arg Val Gln
 50 55 60
 Gly His Ala Ala Pro Val Gly Ala Gln Asp Phe Gly Asp Glu Ala Ala
 65 70 75 80
 His Leu Arg Val Arg His Gly Ala Leu Ala Val Leu Ala Leu Pro Arg
 85 90 95
 Arg Gly Thr Arg Phe Arg Gly Asn Arg Lys Ser Lys Leu Thr Ser Val
 100 105 110
 Gln Gly Arg Ala Arg Ala Val Leu Leu Leu Gly Ala Pro Gly Val Ser
 115 120 125
 Glu Gly Ala Leu Ser Val Ala Val Ser Pro Ala Gln Arg Ser Thr Leu
 130 135 140
 Gly Ser Gln Val Lys Arg Leu Asp Leu Thr Asp Arg Val Leu Val Ala
 145 150 155 160
 Gly Leu Gln Pro Ala
 165

<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 120
 ctgcagggca tcatcgacga cttggtggtg ctgacagcag aaccccacaa actgcctccc
 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctgggc ctaccagacc
 240
 ccaccctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgccc aaacatactc
 360
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 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Phe Cys Thr Phe Ile Thr Phe Leu Gln Pro Val Val Asn Gly Glu Leu
 20 25 30
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

<400> 3949
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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca
 300
 tcagcagact gtcaccata gacatttaca cagtattttg gtttggagtt cttcctaata
 360
 gtcacttcac agaaaaatat ataggtgctg ttttgccctg gaagccagac agatcagaat
 420
 attgggtaag atagctgggt cagctgtcct tggatggatc ccaaacta tgctcctttc
 480
 caggctgag aatcgccgaa cactgtccaa cacaatgtga tcacccaaca tatcacatgc
 540

atcactgagc tgcaccaccc ttttcttctt cattgctttc aagagctcat acttatagt
 600
 ctccacttct tttgcggtgc tgacaagcac agcaacatcc tttggagaat agcccctatc
 660
 aaagaagcgc ctgcacgtgt ctgccacaca ggtcattatt tgetccacag tcaagtattt
 720
 ctttaattcgt aaggttccct gaacaccctg ggaccattcg gcttcaggaa atacctcgag
 780
 gcaccagtg gggatattaa ttggaggatt ttctataatt agttgcattt ctttttgtaa
 840
 gtactcggct atttcatctg cattgcgaac tattctgggt agctcttctc ttggatattg
 900
 gtctgagaga ggagggaggg cactgtgacc caagtggctg gtctgaaagt aatccagaaa
 960
 gatccagaga actcctggac aatccttttc tctctgagtg atgctttttg ccttcccata
 1020
 ccagtcacca tcttcagtae ggaaattctg agcttcgtca atgacgatgt gttgaatgtg
 1080
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 1140
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 1200
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 1260
 taagccgtgg acaaacaact ctctgttctt gcggaggctt ctggagaata tctcatactg
 1320
 ctgggctgtg agcagattta aaacctcaca gccgagctgg tcaactcaaga gagacctgaa
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 1440
 gctataggac gcagggtaat cc
 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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		20					25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35					40					45			
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
		50				55					60				
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65			70					75					80		
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85					90					95		
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
			100					105					110		
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

115	120	125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg		
130	135	140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln		
145	150	155
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr		
165	170	175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala		
180	185	190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile		
195	200	205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser		
210	215	220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu		
225	230	235
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg		
245	250	255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu		
260	265	270
Val Glu His Tyr Lys Tyr Glu Leu Lys Ala Met Arg Lys Lys Arg		
275	280	285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val		
290	295	300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe		
305	310	315
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu		
325	330	335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu		
340	345	350

<210> 3951

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 3951

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 120
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 180
 ccactacttc tgctccagt ccaacaagcc aacagccttc atacaagcaa aatgaagact
 240
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 300
 ccgaagaatc caagagaact acatagaagg cggaagttgg accctgggaa gatgcatgcc
 360
 aaaatctggt taatgaagac ctgcctcagg agcgggaggg ccgctctgcg agagctccga
 420
 agccgtgaga acttctcag caagctcaac cgggagctga tcgagaccat ccaggagatg
 480
 gagaacagca cgaccctgca cgtgcggggc ctgctgcagc agcaggacac cctggcgacc
 540

atcatcgaca tcttggagta ctcaaacaag aagaggctgc agcaattgaa atctgagctt
 600
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 660
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 720
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 780
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 840
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 900
 gcgcagaaag gtcctgggaa tccttgctcg acaagattca gaagaagaag aaaaaaattc
 960
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<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

Met	Lys	Thr	Leu	Thr	Arg	Val	Gln	Pro	Val	Phe	His	Phe	Lys	Pro	Thr
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			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55				60					
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70				75						80
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
				85					90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155					160
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165					170						175	
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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120
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180
caggtgggag atgaaacagg tactcccaa aataggtcat ccgagggagg aaaactgatg
240
gagagcaciaa tgtgctctga gcgtttttaa tgtttttaag cttttaaatg atttcttcaa
300
ggccgagcag cagcagcaaa ggtgtggctt aaaggattaa gggggtttct gctggcacct
360
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420
cactctttcc cagttccttt ttgctggta caaaacgatg ctcacatc cccactaaag
480
caggaggcca ggagcccagc ctctttaga aacagcgagg gtataactgc cctcccgttc
540
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660
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780
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1020
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1080
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1140
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1260
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1320
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1380
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1560
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1620

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 1680
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 2280
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 2460
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 2640
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 2700
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 2760
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 2880
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 2900

<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

Met Gly Leu Leu Gln Gly Leu Leu Arg Val Arg Lys Leu Leu Leu Val

1

5

10

15

Val Cys Val Pro Leu Leu Leu Leu Pro Leu Pro Val Leu His Pro Ser

20 25 30
 Ser Glu Ala Ser Cys Ala Tyr Val Leu Ile Val Thr Ala Val Tyr Trp
 35 40 45
 Val Ser Glu Ala Val Pro Leu Gly Ala Ala Ala Leu Val Pro Ala Phe
 50 55 60
 Leu Tyr Pro Phe Phe Gly Val Leu Arg Ser Asn Glu Val Ala Ala Glu
 65 70 75 80
 Tyr Phe Lys Asn Thr Thr Leu Leu Leu Val Gly Val Ile Cys Val Ala
 85 90 95
 Ala Ala Val Glu Lys Trp Asn Leu His Lys Arg Ile Ala Leu Arg Met
 100 105 110
 Val Leu Met Ala Gly Ala Lys Pro Gly Met Leu Leu Leu Cys Phe Met
 115 120 125
 Cys Cys Thr Thr Leu Leu Ser Met Trp Leu Ser Asn Thr Ser Thr Thr
 130 135 140
 Ala Met Val Met Pro Ile Val Glu Ala Val Leu Gln Glu Leu Val Ser
 145 150 155 160
 Ala Glu Asp Glu Gln Leu Val Ala Gly Asn Ser Asn Thr Glu Glu Ala
 165 170 175
 Glu Pro Ile Ser Leu Asp Val Lys Asn Ser Gln Pro Ser Leu Glu Leu
 180 185 190
 Ile Phe Val Asn Glu Asp Arg Ser Asn Ala Asp Leu Thr Thr Leu Met
 195 200 205
 His Asn Glu Asn Leu Asn Gly Val Pro Ser Ile Thr Asn Pro Ile Lys
 210 215 220
 Thr Ala Asn Gln His Gln Gly Lys Lys Gln His Pro Ser Gln Glu Lys
 225 230 235 240
 Pro Gln Val Leu Thr Pro Ser Pro Arg Lys Gln Lys Leu Asn Arg Lys
 245 250 255
 Tyr Arg Ser His His Asp Gln Met Ile Cys Lys Cys Leu Ser Leu Ser
 260 265 270
 Ile Ser Tyr Ser Ala Thr Ile Gly Gly Leu Thr Thr Ile Ile Gly Thr
 275 280 285
 Ser Thr Ser Leu Ile Phe Leu Glu His Phe Asn Asn Gln Tyr Pro Ala
 290 295 300
 Ala Glu Val Val Asn Phe Gly Thr Trp Phe Leu Phe Ser Phe Pro Ile
 305 310 315 320
 Ser Leu Ile Met Leu Val Val Ser Trp Phe Trp Met His Trp Leu Phe
 325 330 335
 Leu Gly Cys Asn Phe Lys Glu Thr Cys Ser Leu Ser Lys Lys Lys
 340 345 350
 Thr Lys Arg Glu Gln Leu Ser Glu Lys Arg Ile Gln Glu Glu Tyr Glu
 355 360 365
 Lys Leu Gly Asp Ile Ser Tyr Pro Glu Met Val Thr Gly Phe Phe Phe
 370 375 380
 Ile Leu Met Thr Val Leu Trp Phe Thr Arg Glu Pro Gly Phe Val Pro
 385 390 395 400
 Gly Trp Asp Ser Phe Phe Glu Lys Lys Gly Tyr Arg Thr Asp Ala Thr
 405 410 415
 Val Ser Val Phe Leu Gly Phe Leu Leu Phe Leu Ile Pro Ala Lys Lys
 420 425 430
 Pro Cys Phe Gly Lys Lys Asn Asp Gly Glu Asn Gln Glu His Ser Leu
 435 440 445
 Gly Thr Glu Pro Ile Ile Thr Trp Lys Asp Phe Gln Lys Thr Met Pro

450 455 460
 Trp Glu Ile Val Ile Leu Val Gly Gly Gly Tyr Ala Leu Ala Ser Gly
 465 470 475 480
 Ser Lys Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln Met Leu Ser
 485 490 495
 Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
 500 505 510
 Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
 515 520 525
 Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
 530 535 540
 Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
 545 550 555 560
 Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
 565 570 575
 Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
 580 585 590
 Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
 595 600 605
 Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr
 610 615 620
 Asp Gln Ala
 625

<210> 3955

<211> 522

<212> DNA

<213> Homo sapiens

<400> 3955

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 120
 ggccagttct atcccatcac cttgaaggag gtgagcagca gtgaaaatcc atcatcccat
 180
 agcaaagttc gaagtgtgat catggtggtt tttgctgaag acaaaagcag agaagatcag
 240
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 300
 atagctgact ataaagaaag cttcaacact atcagtaaca tgcaggagat tgcgtataac
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 ttaagcacag atttctcttc ccagaaggga gtgaaggggt tgctctttaa cattcaagtt
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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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 Glu Tyr Thr Leu Glu Ala Ser Lys Ser Leu Arg Gln Lys Pro Gly Asp
 20 25 30
 Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu
 35 40 45
 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
 50 55 60
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
 65 70 75 80
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
 85 90 95
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
 100 105 110
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
 115 120 125
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
 130 135 140
 Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val
 145 150 155 160
 Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His
 165 170

<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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 120
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 180
 aaccagatac ttatggagaa gtacctgaag ctgcaggata cctgccgtac tcagttggtg
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 360
 gttctggata tcttgacaga gcaaagggag tgggtcctga agagcagcat cctcattgcc
 420
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 480
 gccctgcgac agaaggaagt agacttctgc atctcactgc ttcgggaacg gttcatggaa
 540
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 600
 tttgaactgc tttggaaaga tattatccat aatcctcagg ccttgagtcc tcagttcaca
 660
 ggtatcctac agcttcttca gtcaagaaca tcccgaataa tctagcatg tcgtctaacc
 720

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<212> PRT

<213> Homo sapiens

<400> 3958

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<212> DNA

<213> Homo sapiens

<400> 3961

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<212> PRT

<213> Homo sapiens

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<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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<212> DNA
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<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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Leu Gly Ala Leu Gly Glu Ala Gly Pro Ser Gly Arg Asp Pro Gln Ser		
65	70	75
Val Gly Phe Ser Val Pro Lys Pro Ala Phe Ile Ser Trp Val Glu Gly		
85	90	95
Glu Val Glu Ala Trp Ser Pro Glu Ala Gln Asp Pro Asp Gly Glu Ser		
100	105	110
Ser Ala Ala Phe Ser Arg Gly Gln Gly Gln Glu Ala Gly Ser Arg Asp		
115	120	125
Gly Asn Glu Glu Lys Glu Arg Leu Lys Lys Cys Pro Lys Gln Lys Glu		
130	135	140
Val Ala His Glu Val Ala Val Lys Glu Trp Trp Pro Ser Val Ala Cys		
145	150	155
Pro Glu Phe Cys Asn Pro Arg Gln Ser Pro Met Asn Pro Trp Leu Lys		
165	170	175
Asp Thr Leu Thr Arg Arg Leu Pro His Ser Cys Pro Asp Cys Gly Arg		
180	185	190
Asn Phe Ser Tyr Pro Ser Leu Leu Ala Ser His Gln Arg Val His Ser		
195	200	205
Gly Glu Arg Pro Phe Ser Cys Gly Gln Cys Gln Ala Arg Phe Ser Gln		
210	215	220
Arg Arg Tyr Leu Leu Gln His Gln Phe Ile His Thr Gly Glu Lys Pro		
225	230	235
Tyr Pro Cys Pro Asp Cys Gly Arg Arg Phe Arg Gln Arg Gly Ser Leu		
245	250	255
Ala Ile His Arg Arg Ala His Thr Gly Glu Lys Pro Tyr Ala Cys Ser		
260	265	270
Asp Cys Lys Ser Arg Phe Thr Tyr Pro Tyr Leu Leu Ala Ile His Gln		
275	280	285
Arg Lys His Thr Gly Glu Lys Pro Tyr Ser Cys Pro Asp Cys Ser Leu		
290	295	300
Arg Phe Ala Tyr Thr Ser Leu Leu Ala Ile His Arg Arg Ile His Thr		
305	310	315
Gly Glu Lys Pro Tyr Pro Cys Pro Asp Cys Gly Arg Arg Phe Thr Tyr		
325	330	335
Ser Ser Leu Leu Ser His Arg Arg Ile His Ser Asp Ser Arg Pro		
340	345	350
Phe Pro Cys Val Glu Cys Gly Lys Gly Phe Lys Arg Lys Thr Ala Leu		
355	360	365
Glu Ala His Arg Trp Ile His Arg Ser Cys Ser Glu Arg Arg Ala Trp		
370	375	380
Gln Gln Ala Val Val Gly Arg Ser Glu Pro Ile Pro Val Leu Gly Gly		
385	390	395
Lys Asp Pro Pro Val His Phe Arg His Phe Pro Asp Ile Phe Gln Glu		
405	410	415
Phe Cys Gln Gln Arg Leu Gln Asp Arg Gly Val Pro Ser Asn Ala Pro		
420	425	430
Pro Val Pro Gly Gln Ser Pro Arg Ser Phe Phe Arg Asp Arg Arg Gln		
435	440	445
Ser Ser Ala Val Ala Tyr Cys Gly His Arg Gly Val Ser Glu Ala Ser		

450		455		460
Gly Pro Tyr Ile Phe	Leu Glu Gly Lys Lys	Pro Leu Leu Tyr Phe	Pro	
465	470	475	480	
Asp Thr Pro Pro Pro	Pro Leu Glu Lys Ala	Glu Ala Ala Leu Phe		
	485	490	495	
Lys Gly Lys Trp Asp	Asp Glu Ala Arg	Glu Met Ala Pro Pro	Ala	
	500	505	510	
Pro Leu Leu Ala Pro	Arg Pro Gly Glu Thr	Arg Pro Gly Cys Arg	Lys	
	515	520	525	
Pro Gly Thr Val Ser	Phe Ala Asp Val Ala	Val Tyr Phe Ser Pro	Glu	
	530	535	540	
Glu Trp Gly Cys Leu	Arg Pro Ala Gln Arg	Ala Leu Tyr Arg Asp	Val	
545	550	555	560	
Met Gln Glu Thr Tyr	Gly His Leu Gly Ala	Leu Gly Phe Pro Gly	Pro	
	565	570	575	
Lys Pro Ala Leu Ile	Ser Trp Met Glu Gln	Glu Ser Glu Ala Trp	Ser	
	580	585	590	
Pro Ala Ala Gln Asp	Pro Glu Lys Gly Glu	Arg Leu Gly Gly Ala	Arg	
	595	600	605	
Arg Gly Asp Val Pro	Asn Arg Lys Glu Glu	Glu Pro Glu Glu Val	Pro	
	610	615	620	
Arg Ala Lys Gly Pro	Arg Lys Ala Pro Val	Lys Glu Ser Pro Glu	Val	
625	630	635	640	
Leu Val Glu Arg Asn	Pro Asp Pro Ala Ile	Ser Val Ala Pro Ala	Arg	
	645	650	655	
Ala Gln Pro Pro Lys	Asn Ala Ala Trp Asp	Pro Thr Thr Gly Ala	Gln	
	660	665	670	
Pro Pro Ala Pro Ile	Pro Ser Met Asp Ala	Gln Ala Gly Gln Arg	Arg	
	675	680	685	
His Val Cys Thr Asp	Cys Gly Arg Arg Phe	Thr Tyr Pro Ser Leu	Leu	
	690	695	700	
Val Ser His Arg Arg	Met His Ser Gly Glu	Arg Pro Phe Pro Cys	Pro	
705	710	715	720	
Glu Cys Gly Met Arg	Phe Lys Arg Lys Phe	Ala Val Glu Ala His	Gln	
	725	730	735	
Trp Ile His Arg Ser	Cys Ser Gly Gly Arg	Arg Gly Arg Arg Pro	Gly	
	740	745	750	
Ile Arg Ala Val Pro	Arg Ala Pro Val Arg	Gly Asp Arg Asp Pro	Pro	
	755	760	765	
Val Leu Phe Arg His	Tyr Pro Asp Ile Phe	Glu Glu Cys Gly		
770	775	780		

<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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 120
 tactggatcc gaggcggac ctcaaggac atcatcaaga ctggaggcta caaggtcagc
 180

gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
 240
 ggagttcccg atatgacatg gggccagcgg gtcactgctg tggtagacct ccgagaagga
 300
 cactcactgt cccacaggga gctcaaagag tgggcccagaa atgtcctggc cccgtacgct
 360
 gtgccctcgg agctggtgct ggtggaggag atcccgcgga accagatggg caagattgac
 420
 aagaaggcgc tcacagggca cttccacccc tcacgacctg gcagactggg actgcgggctc
 480
 tgggtggggg cagcagacgt ccccttcaca ccgagaacca cggggggccc tccaagacct
 540
 ggccctccctt aaacctgaac cccccaatc aggtcacgta gaatcaagaa ctgtttggga
 600
 tgaatcacc atgtgggggc cccagcctcg ggccagttgt tgcagctcaa ggagaccgtc
 660
 cctggtgtca cctctgctg gtcaccgccc acctcatctg tgcagcgagg tgcagccagc
 720
 ccctggcccc acgtgctgag gcacctccc cccacagtg ccctgcagtt gccaggctct
 780
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 840
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 892

<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

Xaa	Pro	Ala	Arg	Pro	Arg	Arg	Ala	Arg	Gly	Gly	Gly	Arg	Gly	Arg	Val
1				5					10					15	
Val	Ala	Arg	Gln	Ile	Leu	Pro	Arg	Gly	Arg	Gly	Arg	Leu	Val	Gly	Asp
			20						25				30		
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
			35					40				45			
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
		50				55					60				
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
		65				70				75				80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
			85					90					95		
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
			100					105					110		
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
		115					120					125			
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
		130				135					140				
Ile	Arg	His	Phe	His	Pro	Ser									
		145				150									

<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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120
ggattgcaac tcggggaggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgacccgc
180
ggaaggcgag cgggtgggac ttccggagca gttaatggtg gggaaacttt ctagtggatg
240
tgggaggagg cgggacttcc tgcagcaa at tggggctgtg cgcgctcaa gcccgtttac
300
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360
gagagccccc ctgggggagc gccccccatc ttctgcct cggacgggca agccctggtc
420
ctgggcaggg gaccctgac ccaggttacg gaccggaagt gctccagaac tcaagtggag
480
ctggctgcag atcctgagac ccggacagtg gcagtgaac aggtatcagt gcctctgcaa
540
gggccagcaa ggcctgggga tgggatttgg ggaggaattg caagccgtca gtgaaggggt
600
acattagga aatctgattg gggccgggcg tgggtggctca agcctgta at cccagcactt
660
tgggaggccg aggcgggagg atcgcttgaa cccaggagtt cgagaccagc ctgagcgaca
720
tgggtgaaacc tgtctctcta aaaaattagc gggaatggtg gcgcgtcctt gtagttccta
780
atcgggaggg tgaagcggga ggatcccttg agcccagtag gtcaaggggt tagtgagcag
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900
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915

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro
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Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20           25           30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35           40           45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50           55           60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65           70           75           80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 3971
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 120
 ctggggaacg ggtaatcaga gaaaccctca ctcatagggt ggtgcccttt atgcagagac
 180
 ttaaaggaag gagggaggtc ccctgacaga gagaatggta agtgcaaagg tctgggtgg
 240
 gcttggtgtg aggaagagca aggccagtgt ggctggaaca gactgagtga aggggagaga
 300
 gttgtaagca atgagcttag acaggaaatg gggctctggtt cacatgggaa atggtaggac
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 420
 ctaatcacca gaa
 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
 Met Ser Tyr His Phe Pro Cys Glu Pro Asp Pro Ile Ser Cys Leu Ser
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 Ser Leu Leu Thr Thr Leu Ser Pro Ser Leu Thr Leu Phe Gln Pro His
 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 caaccataca gagtcaaggt catcgacttt gggttcagcca gccacgtgtc caaggctgtg
 120
 tgctccacct acttgacgtc cagatattac agggccctcg agatcactct tggtttacca
 180
 ttttgtgagg caattgacat gtggtcctcg ggctgtgtta ttgcagaatt gttcctgggt
 240
 tggccgttat atccaggagc ttccggagtat gatcagattc ggtatatttc aaaaacacag
 300
 ggtttgctcg ctgaatattt attaagcgcc gggacaaaga caactaggtt tttcaaccgt
 360
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag
 420
 acagggatta agtcaaaaaga agcaagaaag tacattttca actgttttaga tgatatggcc
 480
 caggtgaaca tgacgacaga tttggaaggg agcgacatgt tggtagaaaa ggctgaccgg
 540
 cgggagttca ttgacctgtt gaagaagatg ctgaccattg atgctgacaa gagaatcact
 600
 ccaatcgaaa ccctgaacca tccctttgtc accatgacac acttactcga ttttccccac
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 780
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 840
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 960
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 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

Leu	Gly	Leu	Ile	His	Ala	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Met	Leu	Val
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Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25						30	
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
			35				40						45		
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
			50				55				60				
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
					70					75				80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
					85					90				95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

100	105	110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu		
115	120	125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys		
130	135	140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala		
145	150	155
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu		
165	170	175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr		
180	185	190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro		
195	200	205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val		
210	215	220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met		
225	230	235
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala		
245	250	255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr		
260	265	270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Gln		
275	280	285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro		
290	295	300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala		
305	310	315
Leu Gln Ala Ser Pro Phe Thr Arg		320
325		

<210> 3975

<211> 593

<212> DNA

<213> Homo sapiens

<400> 3975

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 120
 gctcttgggg gctcaaggga gcttgggcct ctgccagcct gcaagctgcc tccaactctc
 180
 agtcaggatt tggatgcccc cagtgcagtc ctgaggccgc cgccccccat cctactatcc
 240
 tgcttctgag gcgtctcgga atcataggcc tcccgtggaa ggggagcagc aggcgaggtc
 300
 tgcgtgagcc ccacagatgc ccgctcgctt gccagactta aaagtctgtg cccctccccg
 360
 accaccaggg taccagatc ccaggcggt cagccaggcc cagagcccca agagctgggc
 420
 tggtctctcc aactgggatc tggggtaggg gctgctcccc caagtccttg ggggactgtc
 480
 tgggacatcc aggcctgtc ttcttgtctt aaccactcac aacagagaac acgatgttct
 540

gtccacgaaa gaaggcccca cacttctccc atccggcctc cacgtaaacg cgt
593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
1				5				10					15		
Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
	50					55					60				
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65				70						75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85					90					95	
Leu	Ala	Cys	Gln	Thr											
				100											

<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120
ttgtctcggt ggggtgattc ggcacaaacc gcccgaccca ggggcccgtg cgcgtgtgga
180
aggggaagca ctccccctgt ggtcgcttgg aggtgcgctg gaggaggggg tgacataacc
240
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300
cctgggtcca ttttcacctg gaacaagcgg agtggcctgc aggtatcgca ggacttccct
360
ttcctccacc ccagtgcgac cagtgtcctg aatcgactct gccggctcgg cacagactat
420
attcgcttca ctgagttcat tgaacagtac acgggccatg tgcaacagca ggatcaccat
480
ccatctcaac agggccaagg tgggttacat ggaatctacc tgcgggcctt ctgcacaggg
540
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600
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660
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720

atcctggaaa cagtctacaa acacagctgt ggggggttgc ctctgttcg aagtgcactg
780
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1200
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1260
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1320
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1380
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1560
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1620
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1680
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1740
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2220
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2280
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2340

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 2668

<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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Phe	Thr	Trp	Asn	Lys	Arg	Ser	Gly	Leu	Gln	Val	Ser	Gln	Asp	Phe	Pro
			20					25					30		
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40					45			
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55					60				
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70					75				80	
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
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Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
			100					105					110		
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
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Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
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Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
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Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
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Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
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His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
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Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
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Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
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Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
				245					250					255	
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
			260					265					270		
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

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Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu		
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Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro		
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Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala		
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His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu		
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Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa		
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Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser		
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Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His		
450	455	460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys		
465	470	475
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp		
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Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala		
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Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu		
515	520	525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu		
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Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala		
545	550	555
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu		
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Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser		
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Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly		
595	600	605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser		
610	615	620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser		
625	630	635
Asp Leu Ala Gln Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr		
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Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met		
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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<210> 3980

<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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			20					25					30		
Val	Ile	Phe	Leu	Leu	Phe	Met	Asn	Leu	Tyr	Ile	Glu	Asp	Ser	Tyr	Val
		35					40					45			
Leu	Glu	Gly	Asp	Lys	Gln	Leu	Ile	Arg	Glu	Thr	Ser	Thr	His	Gln	Leu

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Asn Ser Glu Arg Tyr	Val His Thr Phe Lys Asp Leu Ser Asn Phe Ser	
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Gly Ala Ile Asn Val Thr Tyr Arg Tyr Leu Ala Ala Thr Pro Leu Gln		80
	85	90
Arg Lys Arg Tyr Leu Thr Ile Gly Leu Ser Ser Val Lys Arg Lys Lys		95
	100	105
Gly Asn Tyr Leu Leu Glu Thr Ile Lys Ser Ile Phe Glu Gln Ser Ser		110
	115	120
Tyr Glu Glu Leu Lys Glu Ile Ser Val Val Val His Leu Ala Asp Phe		125
	130	135
Asn Ser Ser Trp Arg Asp Ala Met Val Gln Asp Ile Thr Gln Lys Phe		140
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Ala His His Ile Ile Ala Gly Arg Leu Met Val Ile His Ala Pro Glu		160
	165	170
Glu Tyr Tyr Pro Ile Leu Asp Gly Leu Lys Arg Asn Tyr Asn Asp Pro		175
	180	185
Glu Asp Arg Val Lys Phe Arg Ser Lys Gln Asn Val Asp Tyr Ala Phe		190
	195	200
Leu Leu Asn Phe Cys Ala Asn Thr Ser Asp Tyr Tyr Val Met Leu Glu		205
	210	215
Asp Asp Val Arg Cys Ser Lys Asn Phe Leu Thr Ala Ile Lys Lys Val		220
225	230	235
Ile Ala Ser Leu Glu Gly Thr Tyr Trp Val Thr Leu Glu Phe Ser Lys		240
	245	250
Leu Gly Tyr Ile Gly Lys Leu Tyr His Ser His Asp Leu Pro Arg Leu		255
	260	265
Ala His Phe Leu Leu Met Phe Tyr Gln Glu Met Pro Cys Asp Trp Leu		270
	275	280
Leu Thr His Phe Arg Gly Leu Leu Ala Gln Lys Asn Val Ile Arg Phe		285
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Lys Pro Ser Leu Phe Gln His Met Gly Tyr Tyr Ser Ser Tyr Lys Gly		300
305	310	315
Thr Glu Asn Lys Leu Lys Asp Asp Asp Phe Glu Glu Glu Ser Phe Asp		320
	325	330
Ile Pro Asp Asn Pro Pro Ala Ser Leu Tyr Thr Asn Met Asn Val Phe		335
	340	345
Glu Asn Tyr Glu Ala Ser Lys Ala Tyr Ser Ser Val Asp Glu Tyr Phe		350
	355	360
Trp Gly Lys Pro Pro Ser Thr Gly Asp Val Phe Val Ile Val Phe Glu		365
	370	375
Asn Pro Ile Ile Ile Lys Lys Ile Lys Val Asn Thr Gly Thr Glu Asp		380
385	390	395
Arg Gln Asn Asp Ile Leu His His Gly Ala Leu Asp Val Gly Glu Asn		400
	405	410
Val Met Pro Ser Lys Gln Arg Arg Gln Cys Ser Ser Tyr Leu Arg Leu		415
	420	425
Gly Glu Phe Lys Asn Gly Asn Phe Glu Met Ser Gly Val Asn Gln Lys		430
	435	440
Ile Pro Phe Asp Ile His Cys Met Arg Ile Tyr Val Thr Lys Thr Gln		445
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<210> 3981

<211> 4447

<212> DNA

<213> Homo sapiens

<400> 3981

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<210> 3982

<211> 929

<212> PRT

<213> Homo sapiens

<400> 3982

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 35 40 45
 Val Cys Lys Leu Leu Phe Ile Phe Leu Leu Gly His Asp Ile Asp Phe
 50 55 60
 Gly His Met Glu Ala Val Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu
 65 70 75 80
 Lys Gln Ile Gly Tyr Leu Phe Ile Ser Val Leu Val Asn Ser Asn Ser
 85 90 95
 Glu Leu Ile Arg Leu Ile Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser
 100 105 110
 Arg Asn Pro Thr Phe Met Gly Leu Ala Leu His Cys Ile Ala Ser Val
 115 120 125
 Gly Ser Arg Glu Met Ala Glu Ala Phe Ala Gly Glu Ile Pro Lys Val
 130 135 140
 Leu Val Ala Gly Asp Thr Met Asp Ser Val Lys Gln Ser Ala Ala Leu
 145 150 155 160
 Cys Leu Leu Arg Leu Tyr Arg Thr Ser Pro Asp Leu Val Pro Met Gly
 165 170 175
 Asp Trp Thr Ser Arg Val Val His Leu Leu Asn Asp Gln His Leu Gly
 180 185 190
 Val Val Thr Ala Ala Thr Ser Leu Ile Thr Thr Leu Ala Gln Lys Asn
 195 200 205
 Pro Glu Glu Phe Lys Thr Ser Val Ser Leu Ala Val Ser Arg Leu Ser
 210 215 220
 Arg Ile Val Thr Ser Ala Ser Thr Asp Leu Gln Asp Tyr Thr Tyr Tyr
 225 230 235 240
 Phe Val Pro Ala Pro Trp Leu Ser Val Lys Leu Leu Arg Leu Leu Gln
 245 250 255
 Cys Tyr Pro Pro Pro Asp Pro Ala Val Arg Gly Arg Leu Thr Glu Cys
 260 265 270
 Leu Glu Thr Ile Leu Asn Lys Ala Gln Glu Pro Pro Lys Ser Lys Lys
 275 280 285
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 Leu Ile Ile His His Asp Ser Glu Pro Asn Leu Leu Val Arg Ala Cys
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 Asn Gln Leu Gly Gln Phe Leu Gln His Arg Glu Thr Asn Leu Arg Tyr
 325 330 335
 Leu Ala Leu Glu Ser Met Cys Thr Leu Ala Ser Ser Glu Phe Ser His
 340 345 350
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 355 360 365
 Glu Arg Asp Val Ser Val Arg Gln Arg Ala Ala Asp Leu Leu Tyr Ala
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 385 390 395 400
 Tyr Leu Glu Thr Ala Asp Tyr Ser Ile Arg Glu Glu Ile Val Leu Lys
 405 410 415
 Val Ala Ile Leu Ala Glu Lys Tyr Ala Val Asp Tyr Thr Trp Tyr Val

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435										440										445										
Glu	Val	Trp	Tyr	Arg	Val	Ile	Gln	Ile	Val	Ile	Asn	Arg	Asp	Asp	Val															
450										455										460										
Gln	Gly	Tyr	Ala	Ala	Lys	Thr	Val	Phe	Glu	Ala	Leu	Gln	Ala	Pro	Ala															
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<211> 2300

<212> DNA

<213> Homo sapiens

<400> 3983

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<211> 484

<212> PRT

<213> Homo sapiens

<400> 3984

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<211> 523

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

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<210> 3992

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<212> PRT

<213> Homo sapiens

<400> 3992

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20          25          30
Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Pro Ser Ala Pro Glu
  50      55      60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
  65      70      75      80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85      90      95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
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Thr Arg Glu Glu Ile Phe Arg Glu Ser Pro Ile Pro Ile Glu Ile
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<212> DNA

<213> Homo sapiens

<400> 3993

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      20      25      30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35      40      45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
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Val Ala Asn Gly Ala His Val Glu
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<212> PRT

<213> Homo sapiens

<400> 3996

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 Gly Ser Asn Pro Thr Pro Pro Ala Ser Val Met Gly Ser Pro Pro Ser
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 Ser Leu Gln Glu Ala Gln Arg Gly Arg Ala Ala Ser His Ser Arg Ala
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 Leu Thr Leu Pro Ser Ala Leu His Phe Ala Ser Ser Leu Leu Leu Thr
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 Leu Leu Gln Pro Arg Pro Val Val Leu Gln Gly Met Gln Val Arg Arg

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Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<212> DNA

<213> Homo sapiens

<400> 3997

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<210> 3998

<211> 2220

<212> PRT

<213> Homo sapiens

<400> 3998

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 His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
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 Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
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 Glu Ser Gly Glu Thr Ala Lys Arg Arg Ser Ala Arg Val Arg Asn Thr
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 Lys Cys Lys Lys Glu Glu Lys Val Asp Phe Gln Glu Leu Leu Met Lys
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3173

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Glu Thr Pro Met Leu	Pro Ser Ser Leu Met	Leu Leu Asn Thr Ala His
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Glu Tyr Leu Gly Arg Arg	Ser Trp Cys Cys Asn Ser	Asp Gly Ala Leu
900	905	910
Leu Arg Phe Tyr Val Arg	Val Leu Gln Lys Glu	Leu Ala Ala Ser Thr
915	920	925
Ser Glu Asp Thr His Pro	Tyr Lys Glu Glu Leu	Glu Thr Ala Leu Glu
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Gln Cys Phe Tyr Cys Leu	Tyr Ser Phe Pro Ser	Lys Lys Ser Lys Ala
945	950	955
Arg Tyr Leu Glu Glu His	Ser Ala Gln Gln Val	Asp Leu Ile Trp Glu
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Asp Ala Leu Phe Met Phe	Glu Tyr Phe Lys Pro	Lys Thr Leu Pro Glu
980	985	990
Phe Asp Ser Tyr Lys Thr	Ser Thr Val Ser Ala	Asp Leu Ala Asn Leu
995	1000	1005
Leu Lys Arg Ile Ala Thr	Ile Val Pro Arg Thr	Glu Arg Pro Ala Leu
1010	1015	1020
Ser Leu Asp Lys Val Ser	Ala Tyr Ile Glu Gly	Thr Ser Thr Glu Val
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Pro Cys Leu Pro Glu Gly	Ala Asp Pro Ser Pro	Pro Val Val Asn Glu
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Leu Tyr Tyr Leu Leu Ala	Asp Tyr His Phe Lys	Asn Lys Glu Gln Ser
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Lys Ala Ile Lys Phe Tyr	Met His Asp Ile Cys	Ile Cys Pro Asn Arg
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Asp Lys Leu Asn Ser Asn	Glu Leu Lys Ser Asp	Gly Pro Ile Trp Lys
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His Ala Thr Pro Val Leu	Asn Cys Phe Arg Arg	Ala Leu Glu Ile Asp
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Gly Asp Glu Glu Glu Trp	Leu Ile His Tyr Met	Leu Gly Lys Val Ala
1205	1210	1215
Glu Lys Gln Gln Gln Pro	Pro Thr Val Tyr Leu	Leu His Tyr Arg Gln
1220	1225	1230
Ala Gly His Tyr Leu His	Glu Glu Ala Ala Arg	Tyr Pro Lys Lys Ile
1235	1240	1245
His Tyr His Asn Pro Pro	Glu Leu Ala Met Glu	Ala Leu Glu Val Tyr
1250	1255	1260
Phe Arg Leu His Ala Ser	Ile Leu Lys Leu Leu	Gly Lys Pro Asp Ser
1265	1270	1275
Gly Val Gly Ala Glu Val	Leu Val Asn Phe Met	Lys Glu Ala Ala Glu

	1285		1290		1295
Gly Pro Phe Ala Arg Gly Glu Glu Lys Asn Thr Pro Lys Ala Ser Glu					
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Lys Glu Lys Ala Cys Leu Val Asp Glu Asp Ser His Ser Ser Ala Gly					
1315		1320		1325	
Thr Leu Pro Gly Pro Gly Ala Ser Leu Pro Ser Ser Ser Gly Pro Gly					
1330		1335		1340	
Leu Thr Ser Pro Pro Tyr Thr Ala Thr Pro Ile Asp His Asp Tyr Val					
1345		1350		1355	1360
Lys Cys Lys Lys Pro His Gln Gln Ala Thr Pro Asp Asp Arg Ser Gln					
1365		1370		1375	
Asp Ser Thr Ala Val Ala Leu Ser Asp Ser Ser Ser Thr Gln Asp Phe					
1380		1385		1390	
Phe Asn Glu Pro Thr Ser Leu Leu Glu Gly Ser Arg Lys Ser Tyr Thr					
1395		1400		1405	
Glu Lys Arg Leu Pro Ile Leu Ser Ser Gln Ala Gly Ala Thr Gly Lys					
1410		1415		1420	
Asp Leu Gln Gly Ala Thr Glu Glu Arg Gly Lys Asn Glu Glu Ser Leu					
1425		1430		1435	1440
Glu Ser Thr Glu Gly Phe Arg Ala Ala Glu Gln Gly Val Gln Lys Pro					
1445		1450		1455	
Ala Ala Glu Thr Pro Ala Ser Ala Cys Ile Pro Gly Lys Pro Ser Ala					
1460		1465		1470	
Ser Thr Pro Thr Leu Trp Asp Gly Lys Lys Arg Gly Asp Leu Pro Gly					
1475		1480		1485	
Glu Pro Val Ala Phe Pro Gln Gly Leu Pro Ala Gly Ala Glu Glu Gln					
1490		1495		1500	
Arg Gln Phe Leu Thr Glu Gln Cys Ile Ala Ser Phe Arg Leu Cys Leu					
1505		1510		1515	1520
Ser Arg Phe Pro Gln His Tyr Lys Ser Leu Tyr Arg Leu Ala Phe Leu					
1525		1530		1535	
Tyr Thr Tyr Ser Lys Thr His Arg Asn Leu Gln Trp Ala Arg Asp Val					
1540		1545		1550	
Leu Leu Gly Ser Ser Ile Pro Trp Gln Gln Leu Gln His Met Pro Ala					
1555		1560		1565	
Gln Gly Leu Phe Cys Glu Arg Asn Lys Thr Asn Phe Phe Asn Gly Ile					
1570		1575		1580	
Trp Arg Ile Pro Val Asp Glu Ile Asp Arg Pro Gly Ser Phe Ala Trp					
1585		1590		1595	1600
His Met Asn Arg Ser Ile Val Leu Leu Leu Lys Val Leu Ala Gln Leu					
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Arg Asp His Ser Thr Leu Leu Lys Val Ser Ser Met Leu Gln Arg Thr					
1620		1625		1630	
Pro Asp Gln Gly Lys Lys Tyr Leu Arg Asp Ala Asp Arg Gln Val Leu					
1635		1640		1645	
Ala Gln Arg Ala Phe Ile Leu Thr Val Lys Val Leu Glu Asp Thr Leu					
1650		1655		1660	
Ser Glu Leu Ala Glu Gly Ser Glu Arg Pro Gly Pro Lys Val Cys Gly					
1665		1670		1675	1680
Leu Pro Gly Ala Arg Met Thr Thr Asp Val Ser His Lys Ala Ser Pro					
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Glu Asp Gly Gln Glu Gly Leu Pro Gln Pro Lys Lys Pro Pro Leu Ala					
1700		1705		1710	
Asp Gly Ser Gly Pro Gly Pro Glu Pro Gly Gly Lys Val Gly Leu Leu					

1715 1720 1725
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 1730 1735 1740
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 1745 1750 1755 1760
 Met Asp Thr Ser Glu Ala Thr Val Cys His Ser Asp Leu Glu Arg Thr
 1765 1770 1775
 Pro Pro Leu Leu Pro Gly Arg Pro Ala Arg Asp Arg Gly Pro Glu Ser
 1780 1785 1790
 Arg Pro Thr Glu Leu Ser Leu Glu Leu Ser Ile Ser Ala Arg Gln
 1795 1800 1805
 Gln Pro Thr Pro Leu Thr Pro Ala Gln Pro Ala Pro Ala Pro Ala Pro
 1810 1815 1820
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 Ser Arg Leu Ser Arg Lys Arg Lys Leu Leu Glu Asp Thr Glu Ser Gly
 1845 1850 1855
 Lys Thr Leu Leu Leu Asp Ala Tyr Arg Val Trp Gln Gln Gly Gln Lys
 1860 1865 1870
 Gly Val Ala Tyr Asp Leu Gly Arg Val Glu Arg Ile Met Ser Glu Thr
 1875 1880 1885
 Tyr Met Leu Ile Lys Gln Val Asp Glu Glu Ala Ala Leu Glu Gln Ala
 1890 1895 1900
 Val Lys Phe Cys Gln Val His Leu Gly Ala Ala Ala Gln Arg Gln Ala
 1905 1910 1915 1920
 Ser Gly Asp Thr Pro Thr Thr Pro Lys His Pro Lys Asp Ser Arg Glu
 1925 1930 1935
 Asn Phe Phe Pro Val Thr Val Val Pro Thr Ala Pro Asp Pro Val Pro
 1940 1945 1950
 Ala Asp Ser Val Gln Arg Pro Ser Asp Ala His Thr Lys Pro Arg Pro
 1955 1960 1965
 Ala Leu Ala Ala Ala Thr Thr Ile Ile Thr Cys Pro Pro Ser Ala Ser
 1970 1975 1980
 Ala Ser Thr Leu Asp Gln Ser Lys Asp Pro Gly Pro Pro Arg Pro His
 1985 1990 1995 2000
 Arg Pro Glu Ala Thr Pro Ser Met Ala Ser Leu Gly Pro Glu Gly Glu
 2005 2010 2015
 Glu Leu Ala Arg Val Ala Glu Gly Thr Ser Phe Pro Pro Gln Glu Pro
 2020 2025 2030
 Arg His Ser Pro Gln Val Lys Met Ala Pro Thr Ser Ser Pro Ala Glu
 2035 2040 2045
 Pro His Cys Trp Pro Ala Glu Ala Ala Leu Gly Thr Gly Ala Glu Pro
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 Thr Cys Ser Gln Glu Gly Lys Leu Arg Pro Glu Pro Arg Arg Asp Gly
 2065 2070 2075 2080
 Glu Ala Gln Glu Ala Ala Ser Glu Thr Gln Pro Leu Ser Ser Pro Pro
 2085 2090 2095
 Thr Ala Ala Ser Ser Lys Ala Pro Ser Ser Gly Ser Ala Gln Pro Pro
 2100 2105 2110
 Glu Gly His Pro Gly Lys Pro Glu Pro Ser Arg Ala Lys Ser Arg Pro
 2115 2120 2125
 Leu Pro Asn Met Pro Lys Leu Val Ile Pro Ser Ala Ala Thr Lys Phe
 2130 2135 2140
 Pro Pro Glu Ile Thr Val Thr Pro Pro Thr Pro Thr Leu Leu Ser Pro

2145 2150 2155 2160
 Lys Gly Ser Ile Ser Glu Glu Thr Lys Gln Lys Leu Lys Ser Ala Ile
 2165 2170 2175
 Leu Ser Ala Gln Ser Ala Ala Asn Val Arg Lys Glu Ser Leu Cys Gln
 2180 2185 2190
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 2210 2215 2220

<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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<210> 4000

<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala Ala Phe Val Val Val
 35          40          45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
 50          55          60
Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65          70          75          80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85          90          95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
115          120          125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
180          185          190
Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
195          200          205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
210          215          220
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
225          230          235          240
Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
245          250          255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
260          265          270
Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
275          280          285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
290          295          300
Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
305          310          315          320
Asn Gln Leu Lys Ala Trp Leu Gln Gln Tyr His Asn Gln Cys Gln Glu
325          330          335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
340          345          350
Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
385          390          395          400
Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
405          410          415
Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

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<210> 4001
<211> 1251
<212> DNA
<213> Homo sapiens
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240
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600
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660
accaccacca ctgacctagg tgtgaccacc agcgtgccgg aggtgcccat gatggagaag
720

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 840
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 960
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 1020
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 1080
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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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			20					25					30		
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35				40						45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro	
	50					55				60					
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
65					70					75				80	
Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
				85					90				95		
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
		100						105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115				120						125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
	130					135					140				
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145				150						155				160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165					170					175		
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
		180					185					190			
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
		195				200						205			
Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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3182

<211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4004

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      20           25           30
Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro
      35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
      50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
      65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
      85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
      100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
      115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
      130          135          140
Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
      145          150          155          160

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<210> 4005
 <211> 666
 <212> DNA
 <213> Homo sapiens

<400> 4005

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240
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420
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666

<210> 4006

<211> 222

<212> PRT

<213> Homo sapiens

<400> 4006

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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
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<210> 4007

<211> 2313

<212> DNA

<213> Homo sapiens

<400> 4007

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1920

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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
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65						70				75					80
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
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Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
			100					105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
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Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
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Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165						170					175	
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
		180						185					190		
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
		195					200					205			
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		210				215					220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225					230					235					240
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
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<210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens

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<210> 4010
 <211> 225
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<400> 4010
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 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
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 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
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<213> Homo sapiens
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<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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		20						25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
	35						40				45				
Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
	50				55					60					
Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
65				70					75				80		
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
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Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
		100					105					110			
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
	115						120					125			
Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
	130					135					140				
Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
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			165					170					175		
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
		180					185					190			
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
	195						200					205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
	210				215						220				
Leu	Arg	Ala	Thr	Cys	Leu	Glu	Glu	Met	Thr	Lys	Arg	Asp	Val	Pro	Gly

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Arg	Met	Val	Ala	Leu	Ser	Arg
		260		265		270
Tyr	Leu	Met	Gly	Val	Gly	Tyr
		275		280		285
Leu	Gly	Cys	Asp	Met	Phe	Asp
		290		295		300
Phe	Gly	Ser	Ala	Leu	Val	Pro
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Val	Phe	Glu	Lys	Asp	Phe	Gly
		320		325		330
Thr	Cys	Gln	Lys	His	Ser	Arg
		335		340		345
Asp	Asn	Thr	Ala	Ala	Leu	His
		350		355		360
Gln	Leu	Gln	Leu	Met	Ser	Ala
		365		370		375
Phe	Pro	Asp	Phe	Val	Arg	Asp
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<210> 4013

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 4013

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660

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<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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		20						25				30			
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala
	50					55				60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65				70					75					80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
			85					90					95		
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
		100						105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
		115					120					125			
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130					135					140				
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145				150					155					160	
Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

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 Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Ser Asn Thr Leu Ser
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 Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
 195 200 205
 Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
 210 215 220
 Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
 225 230 235 240
 Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
 245 250 255
 Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
 260 265 270
 Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
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 Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
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 Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
 305 310 315 320
 Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
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 Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
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 Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
 355 360 365
 Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser
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 Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly
 385 390 395 400
 Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu
 405 410 415
 Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Arg Lys
 420 425 430
 Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr
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 Leu Ser Asp Glu Ser Ile Cys Ser Asn Arg Arg Gly Ser Ser Phe Gly
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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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			20					25					30		
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			35				40					45			
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			50			55					60				
Thr	Ser	Glu	Gln	Leu	Thr	Glu	Gln	Glu	Arg	Ala	Lys	Asp	Ala	Glu	Lys
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<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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<212> PRT

<213> Homo sapiens

<400> 4024

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Trp Gly Asp Lys Lys Val Ile Cys Asn Lys Phe Ile Gln Thr Ser Ala			
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Val Thr Cys Leu Gln Trp Pro Ala Glu Tyr Ile Ile Val Phe Gly Leu			
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Ala Glu Gly Lys Val Arg Leu Ala Asn Thr Lys Thr Asn Lys Ser Ser			
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Thr Ile Tyr Gly Thr Glu Ser Tyr Val Val Ser Leu Thr Thr Asn Cys			
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Ser Gly Lys Gly Ile Leu Ser Gly His Ala Asp Gly Thr Ile Val Arg			
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Tyr Phe Phe Asp Asp Glu Gly Ser Gly Glu Ser Gln Gly Lys Leu Val			
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Asn His Pro Cys Pro Pro Tyr Ala Leu Ala Trp Ala Thr Asn Ser Ile			
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Val Ala Ala Gly Cys Asp Arg Lys Ile Val Ala Tyr Gly Lys Glu Gly			
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His Met Leu Gln Thr Phe Asp Tyr Ser Arg Asp Pro Gln Glu Arg Glu			
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Phe Thr Thr Ala Val Ser Ser Pro Gly Gly Gln Ser Val Val Leu Gly			
180	185	190	
Ser Tyr Asp Arg Leu Arg Val Phe Asn Trp Ile Pro Arg Arg Ser Ile			
195	200	205	
Trp Glu Glu Ala Lys Pro Lys Glu Ile Thr Asn Leu Tyr Thr Ile Thr			
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Ala Leu Ala Trp Lys Arg Asp Gly Ser Arg Leu Cys Val Gly Thr Leu			
225	230	235	240
Cys Gly Gly Val Glu Gln Phe Asp Cys Cys Leu Arg Arg Ser Ile Tyr			
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Lys Asn Lys Phe Glu Leu Thr Tyr Val Gly Pro Ser Gln Val Ile Val			
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Lys Asn Leu Ser Ser Gly Thr Arg Val Val Leu Lys Ser His Tyr Gly			
275	280	285	
Tyr Glu Val Glu Glu Val Lys Ile Leu Gly Lys Glu Arg Tyr Leu Val			
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Ala His Thr Ser Glu Thr Leu Leu Leu Gly Asp Leu Asn Thr Asn Arg			
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Leu Ser Glu Ile Ala Trp Gln Gly Ser Gly Gly Asn Glu Lys Tyr Phe			
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Leu Val Glu Tyr Gly Asn Asn Asp Thr Leu Gly Ser Val Arg Thr Glu			
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Phe Met Asn Pro His Leu Ile Ser Val Arg Ile Asn Glu Arg Cys Gln			
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Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp Ile Lys			
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Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val			
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Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

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Glu Ser Cys Ser Lys Thr Met	Ile Leu Asn Phe Cys Ser Tyr Met Gln	
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Cys Val Trp Tyr Asn Ile Glu Ala Pro	Glu Arg Val Thr Met Phe Thr	480
485	490	495
Ile Arg Gly Asp Val Ile Gly Leu Glu Arg	Gly Gly Gly Lys Thr Glu	
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Val Met Val Met Glu Gly Val Thr Thr	Val Ala Tyr Thr Leu Asp Glu	
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Gly Leu Ile Glu Phe Gly Thr Ala Ile	Asp Asp Gly Asn Tyr Ile Arg	
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Ala Thr Ala Phe Leu Glu Thr Leu Glu Met	Thr Pro Glu Thr Glu Ala	560
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Met Trp Lys Thr Leu Ser Lys Leu Ala Leu	Glu Ala Arg Gln Leu His	
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Phe Leu His Glu Thr Asn Glu Ile Ala Asp	Gln Val Ser Arg Glu Tyr	
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Gly Gly Glu Gly Thr Asp Phe Tyr Gln Val	Arg Ala Arg Leu Ala Met	
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Leu Glu Lys Asn Tyr Lys Leu Ala Glu Met	Ile Phe Leu Glu Gln Asn	
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Ala Val Glu Glu Ala Met Gly Met Tyr Gln	Glu Leu His Arg Trp Asp	
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Glu Cys Ile Ala Val Ala Glu Ala Lys Gly	His Pro Ala Leu Glu Lys	
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Leu Arg Arg Ser Tyr Tyr Gln Trp Leu Met	Asp Thr Gln Gln Glu Glu	
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Arg Ala Gly Glu Leu Gln Glu Ser Gln Gly	Asp Gly Leu Ala Ala Ile	
690	695	700
Ser Leu Tyr Leu Lys Ala Gly Leu Pro Ala	Lys Ala Ala Arg Leu Val	
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Leu Thr Arg Glu Glu Leu Leu Ala Asn Thr	Glu Leu Val Glu His Ile	
725	730	735
Thr Ala Ala Leu Ile Lys Gly Glu Leu Tyr	Glu Arg Ala Gly Asp Leu	
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Phe Glu Lys Ile His Asn Pro Gln Lys Ala	Leu Glu Cys Tyr Arg Lys	
755	760	765
Gly Asn Ala Phe Met Lys Ala Val Glu Leu	Ala Arg Leu Ala Phe Pro	
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Val Glu Val Val Lys Leu Glu Glu Ala Trp	Gly Asp His Leu Val Gln	
785	790	795
Gln Lys Gln Leu Asp Ala Ala Ile Asn His	Tyr Ile Glu Ala Arg Cys	
805	810	815
Ser Ile Lys Ala Ile Glu Ala Ala Leu Gly	Ala Arg Gln Trp Lys Lys	
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Ala Ile Tyr Ile Leu Asp Leu Gln Asp Arg	Asn Thr Ala Ser Lys Tyr	
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Tyr Pro Leu Val Ala Gln His Tyr Ala Ser	Leu Gln Glu Tyr Glu Ile	
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 Met Tyr Thr Gln Ala Gly Arg Trp Glu Gln Ala His Lys Leu Ala Met
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<212> DNA

<213> Homo sapiens

<400> 4025

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<211> 302

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<213> Homo sapiens

<400> 4026

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<211> 236

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<213> Homo sapiens

<400> 4028

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Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
			165					170						175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
		180						185					190		
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
	195						200					205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
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Glu	Gly	Glu	Val	Asn	Thr	Arg	Phe	Ser	Leu	Lys	His				
225					230					235					

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120
 ctacatgctg ctgctggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcagggcga
 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
 240
 ggtgggcccgt gctggcgcgc gccgccaaca tggcgctggt ccgggacagc cgtgtctcgg
 300
 ccattcttctg cggaacaaac gtggtggcgc tgcacaccaa ggctgcacc tnttctgga
 360
 gtaccgcccgc caggtgcgcy acttcccnng ccgcctgcgc 'tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgccgccg ccgccgccgc cgctgcacgg cccgcctggg
 480
 ncgccccac atgtctcgc ccacgcgtga cccctggac acgtgacagg gcccgcgcg
 540
 ccccgacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cgtttgcat
 600
 gggatgggggt gggggcgggc tcccctaggg acaggtgcct cgagtgcggg tgcctggggg
 660
 cccgcggccg cttcttcac tcaggaatct ctcgaccgc ggatcctcag ccccgctcc
 720
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 780
 gatccggccc ctgcctgctg ggccgcccgg gttggaaggg agggcagtggt gggcggagat
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 900
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 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

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Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
		20					25					30			
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala	
		35				40					45				
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
		50				55					60				
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65				70				75						80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
			85					90						95	
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105					110		
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

	115		120		125	
Pro	Xaa	Pro	Pro	Ala	Leu	Ser
	130		135		140	
Arg	Asn	Ser	Val	Pro	Pro	Pro
	145		150		155	
Xaa	Pro	Pro	His	Val	Leu	Ala
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<210> 4031
 <211> 1406
 <212> DNA
 <213> Homo sapiens

<400> 4031
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 120
 gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtgtt tgaaaagtat
 180
 actacagctg caagaacttt tccagataaa aaggaacgtg aagaaatata gactttaaaa
 240
 cagcaaatag cagattttacg ggaagatttg aaaagaaagg agaccaaatg gtcaagtaca
 300
 cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa
 360
 gaaataaaag tgatggaaag attccgactg gatgcctgga agagagcaga agccatagag
 420
 agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac
 480
 agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
 540
 ggcaatccac ctccaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag
 600
 ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat
 660
 aaagaggagg aggaagacca agacatacag ggagaaatca gtcacctga tggaaagggtg
 720
 gaaaagggtt ataagaatgg gtgccgtgtt atactgttcc ccaatggaac tcgaaaggaa
 780
 gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcaggtc
 840
 atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagacatac
 900
 ccggaggggac tggaagtctt acattttctca agtggacaaa tagaaaaaca ttaccagat
 960
 ggaagaaaag aaatcacgtt tctgaccag actgttaaaa acttatttcc tgatggacaa
 1020
 gaagaaagca ttttcccaga tgggtacaatt gtcagagtac aacgtgatgg caacaaactc
 1080
 atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
 1140
 ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
 1200

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac
 1320
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
 1380
 gtttaccctg tggcaaaaaa aaaaaa
 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
	20						25					30			
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
	35						40					45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50					55					60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65					70					75				80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85						90					95	
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
	100						105					110			
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130				135						140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145					150					155				160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165						170					175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
	180							185					190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210				215						220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225					230					235				240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245						250					255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
	260							265					270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu	
	290				295					300					
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

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<210> 4033
<211> 487
<212> DNA
<213> Homo sapiens
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<400> 4033
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120
tcaagaagag cctcctagtg ttggcctcta actggctgtg cgaccccagg caggtcactt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttccaggct ggcttctcac
240
tgcagagcag aggaaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
300
aacttccacg gccggccctc aatgggttcc tttctctccc acaagagcgc tgggccaaagc
360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttggtca
420
ggaccagacg ggaggcctgg cgcccccgcc cgccatgtgt ggggagcggg cctctccaag
480
ccagtc
487
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<210> 4034
<211> 94
<212> PRT
<213> Homo sapiens
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<400> 4034
Met Asn Thr Gly Ile Phe Pro Gly Trp Leu Leu Thr Ala Glu Gln Arg
 1             5             10             15
Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
      20             25             30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
      35             40             45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

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50 55 60
 Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
 65 70 75 80
 Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
 85 90

<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 aatgtttctgg aatcctatgt gagggacaaa cattcagacc ccagcagcaa tgttctggaa
 120
 tcctatggga gggacaaact ctcagaaaat agcaagagta ttttggaatc ctatctgagg
 180
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgagggg caaacattca
 240
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
 300
 agtgtttctgg aatccttttt ttttttgaag ctttcaatct ctt
 343

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4036
 Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
 1 5 10 15
 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
 20 25 30
 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
 85 90 95
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
 100 105 110
 Ile Ser

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

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 tcatacataa ggtcttcatt ctcatcctct tcacgttgag taggctgagg aggaggaaga
 120
 ggaggagaag gggttggtct tgctgtctca gggcggcaga ggcagaagag aatctgagca
 180
 tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtcctgc
 240
 tggaatgatg cctttacaca tctgtctgat ctgattgtc cactgttttc tgacttctct
 300
 tccttttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtag
 360
 agatacaact gcatggctcc ttccttgcgc caagagaggt ttgcctttaa gatctcacca
 420
 aagcccagca aaccactgag gccttgtatt cagctgagca gcaagaatga agccagtgga
 480
 atgggtggccc cggctgtcca ggagaagaag gtgaaaaagc ggggtgcctt cgagacaaac
 540
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 660
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 720
 caggccgacc acgtctgcct t
 741

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Arg	Gln	Glu	Arg	Phe	Ala	Phe	Lys	Ile	Ser	Pro	Lys	Pro	Ser	Lys	Pro
			20				25						30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
			35				40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
	50				55					60					
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
65				70					75					80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
			85				90						95		
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100				105					110			
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
	115					120						125			
Ala	Asp	His	Val	Cys	Leu										
	130														

<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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120
gagcgaggag ccctcgacg cgctagtctg cgagtgcg ctcagcccg cacctgttcc
180
tccagcgccg ccgccttccc acccctcgga cccgcgcgcg tcgcggcgcc cgcccgttcc
240
tgcatgaat ccggccctag gcaaccagac ggacgtggcg ggcccttctg gccaacagca
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gcgagggcgt ggagcgagcc gtgcgctgct gcaccaggc gtccgtggtg accgacgacg
360
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420
cggctcatgt cgtgctctca ctcaccgtgg tcttcggcat cttcttctc ggctgcaatc
480
tgctcatcaa gtccgagggc atgatcaact tcctcgtgaa ggaccggagg ccgtctaagg
540
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600
cccagcctg ccactttgc tagcccggt gtgcccctca ctatcagaga ctggcggaag
660
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720
ttctccctcg ccctctgaaa gtccctcatgc ctggcagtcg gaggagagcg cccagactct
780
gaactcagca gaaagtggca agaagagggc gattagggcg cagaactttg gaagctgcta
840
cttacttga atgcggggag accgacggtg cgaaggccct tctccaccog caggtggggc
900
aagctctggg ggcaggtgga gaggcgggc aggggagaga cccagcgga ctgacgcct
960
tgtgaccgga agagtgcct gttaaaagcc acgcagcaga ctcatgggt ctcacaaatc
1020
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1080
gataaatacc tttgattgta acgtgccgt ttaagaggt ttgtgtttgt ttgcttgaat
1140
acaaatgttt gataagtctt tttctgccc agtggcctgt ttgcctgcct gaggagtac
1200
agttttgtca ttgtggaaga aggggtggg ggagggggag cctgcgaatt tgaacgggt
1260
gagttgttcc ttttagtgca tttccactg ggtcttttg gaggcgtcta gcgttctgc
1320
tggccctggg acaaagacc agaatagaac tcgtagctcg tgactgcacg gtttacgcca
1380
caaaagtgt cttgacatcc gtgacaccgt tttgactttt tgttttttcc ttatttaaca
1440
tttcttaat aaatgcaaca ttttagcgtt aaaaaaaaa aaaaaaaaa aaaaaaaaa
1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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Thr Ala Gln Gly Leu Ser Lys Ala Glu Arg Gly Ala Leu Ala Arg Ala
20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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ggtgagattc cagctgaatt aaggcgccgc gccactgacc accggcagga gctaattgaa
120
tgtgttgcca attcagatga acagcttggt gagatgtttc tggaagaaaa aatccccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
tttttgggaa gcgccttgaa gaacaaagga gttcagcctc ttttagatgc tgttttagaa
300
tacctcccaa atccatctga agtccagaac tatgctattc tcaataaaga ggatgactca
360
aaagagaaaa ccaaaatcct aatgaactcc agtagagaca attcccaccc atttgtaggc
420
ctggctttta aactggaggt aggtcgattt ggacaattaa cttatgttcg cagttatcag
480
ggagagctaa agaagggtga caccatctat aacacaagga caagaaagaa agtacgggtg
540
caacggctgg ctgcgatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

Asp Leu Ile Glu Glu Arg Ala Ile Tyr Phe Asp Gly Asp Phe Gly Gln
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 Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Thr
 20 25 30
 Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
 35 40 45
 Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
 50 55 60
 Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
 65 70 75 80
 Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
 85 90 95
 Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
 100 105 110
 Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
 115 120 125
 Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
 130 135 140
 Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
 145 150 155 160
 Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
 165 170 175
 Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
 180 185 190

<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 tagcttccaa gggacaaggt gtcaacaatg tgccgaaaag ggatagttgg ccagtggggc
 120
 ctccccaaaa aagacccaaa agttaaggt gtccaatcag cagctgtaca agcttttctt
 180
 aaaaggaaa aagaggagct gagacgaaaa gccttagagg agaaaaggag aaaagaggaa
 240
 ctagtgaaaa agcgaattga gctcaaaccat gacaagaaag caagagctat ggccaagagg
 300
 acaaaggata atttccatgg ttacaatggg attcctattg aggaaaagtc aaagaagagg
 360
 caggcaacag aaagccatac cagccaagga accgaccgag agtatgaaat ggaagaagag
 420
 aatgaattcc tcgagtacaa tcacgcagag tcagagcagg agtatgagga agagcaagaa
 480
 cctcccaaag ttgaaagcaa accaaagggt tcccttaaag gtgccccacc acccatgaac
 540
 ttactgatt tactcaggct ggctgagaaa aagcagtttg aaccagtgga aatcaaggta
 600

gtgaagaaat cagaagagcg acctatgacc gcagaagaac ttagggagcg agaattcctt
 660
 gaacgaaagc ataggagaaa aaaacttgag acagatggaa aactacctcc aactgtgtcc
 720
 aaaaaggcac ctctcgagcg gaag
 744

<210> 4044
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 4044
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 Pro Lys Val Lys Gly Val Gln Ser Ala Ala Val Gln Ala Phe Leu Lys
 20 25 30
 Arg Lys Glu Glu Glu Leu Arg Arg Lys Ala Leu Glu Glu Lys Arg Arg
 35 40 45
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75 80
 Gly Ile Pro Ile Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Arg Leu Ala Glu
 145 150 155 160
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
 165 170 175
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu
 180 185 190
 Arg Lys His Arg Arg Lys Lys Leu Glu Thr Asp Gly Lys Leu Pro Pro
 195 200 205
 Thr Val Ser Lys Lys Ala Pro Leu Gly Arg Lys
 210 215

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<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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Glu	Gln	Phe	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg	
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Leu Arg Asn Lys Val Asp Thr Tyr Val Glu Phe Pro Leu Arg Gly Leu		
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Cys Leu Tyr Asp Leu Ala Ala Val Val Val His His Gly Ser Gly Val		
370	375	380
Gly Ser Gly His Tyr Thr Ala Tyr Ala Thr His Glu Gly Arg Trp Phe		
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His Phe Asn Asp Ser Thr Val Thr Leu Thr Asp Glu Glu Thr Val Val		
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<211> 809

<212> DNA

<213> Homo sapiens

<400> 4047

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<210> 4048

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4048

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Val	Ala	Ile	Gly	Phe	Thr	Gly	Gly	Leu	Val	Phe	Met	Tyr	Val	Gln	Cys
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Lys	Val	Tyr	Val	Gln	Leu	Trp	Arg	Arg	Leu	Lys	Ala	Tyr	Asn	Arg	Val
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Ile	Phe	Val	Gln	Asn	Cys	Pro	Asp	Thr	Ala	Lys	Lys	Leu	Glu	Lys	Asn
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<213> Homo sapiens

<400> 4049

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<211> 403

<212> PRT

<213> Homo sapiens

<400> 4050

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Phe	Glu	Gly	His	Lys	Leu	Ile	Ala	His	Trp	Phe	Arg	Gly	Tyr	Leu	Ile
	35					40					45				
Ile	Val	Ser	Arg	Asp	Arg	Lys	Val	Ser	Pro	Lys	Ser	Glu	Phe	Thr	Ser
	50					55					60				
Arg	Asp	Ser	Gln	Ser	Ser	Asp	Lys	Gln	Ile	Leu	Asn	Ile	Tyr	Asp	Leu
65				70						75				80	
Cys	Asn	Lys	Phe	Ile	Ala	Tyr	Ser	Thr	Val	Phe	Glu	Asp	Val	Val	Asp
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Val	Leu	Ala	Glu	Trp	Gly	Ser	Leu	Tyr	Val	Leu	Thr	Arg	Asp	Gly	Arg
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Val	His	Ala	Leu	Gln	Glu	Lys	Asp	Thr	Gln	Thr	Lys	Leu	Glu	Met	Leu
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Lys Ser Glu Ser Glu Val His Phe Asp Val Glu Thr Ala Ile Lys Val		
245	250	255
Leu Arg Gln Ala Gly Tyr Tyr Ser His Ala Leu Tyr Leu Ala Glu Asn		
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His Ala His His Glu Trp Tyr Leu Lys Ile Gln Leu Glu Asp Ile Lys		
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Pro Ser Leu Glu Gly Arg Ser Asp Arg Glu Ala Pro Gly Cys Arg Ala		
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Lys Ala Phe Leu Glu His Met Ser Glu Val Gln Pro Asp Ser Pro Gln		
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<211> 1645

<212> DNA

<213> Homo sapiens

<400> 4051

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<211> 93

<212> PRT

<213> Homo sapiens

<400> 4052

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 <212> DNA
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Lys Arg Arg Gln Ile Leu Ser Asn Lys Gly Leu Ser Glu Asp Glu Lys		
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Asn Thr Lys Leu Gln Glu Leu Val Leu Lys Asn Pro Ser Gly Ser Gly		
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Pro Pro Leu Ser Ile Glu Asp Leu Gly Leu Asn Phe Gln Phe Cys Pro		
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Ser Ser Arg Ile Tyr Gly Phe Thr Ala Val Asp Leu Lys Pro Ser Gly		
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Met Phe Asp Phe Cys Met His Thr Gly Ile Gln Lys Gln Met Glu Ala		
2275	2280	2285
Phe Arg Asp Gly Phe Asn Lys Val Phe Pro Met Glu Lys Leu Ser Ser		
2290	2295	2300
Phe Ser His Glu Glu Val Gln Met Ile Leu Cys Gly Asn Gln Ser Pro		
2305	2310	2315
Ser Trp Ala Ala Glu Asp Ile Ile Asn Tyr Thr Glu Pro Lys Leu Gly		
2325	2330	2335
Tyr Thr Arg Asp Ser Pro Gly Phe Leu Arg Phe Val Arg Val Leu Cys		
2340	2345	2350
Gly Met Ser Ser Asp Glu Arg Lys Ala Phe Leu Gln Phe Thr Thr Gly		
2355	2360	2365
Cys Ser Thr Leu Pro Pro Gly Gly Leu Ala Asn Leu His Pro Arg Leu		
2370	2375	2380
Thr Val Val Arg Lys Val Asp Ala Thr Asp Ala Ser Tyr Pro Ser Val		
2385	2390	2395
Asn Thr Cys Val His Tyr Leu Lys Leu Pro Glu Tyr Ser Ser Glu Glu		
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<210> 4057

<211> 533

<212> DNA

<213> Homo sapiens

<400> 4057

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<210> 4058

<211> 157

<212> PRT

<213> Homo sapiens

<400> 4058

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Thr	Ala	Arg	Ser	Ser	Lys	Ala	Phe	Pro	Glu	Asp	Val	Val	Arg	Val	Ile
		20					25					30			
Phe	Ser	Asn	Ile	Ser	Ser	Ile	Tyr	Gln	Phe	His	Ser	Gln	Phe	Phe	Leu
		35				40					45				
Pro	Glu	Leu	Gln	Arg	Arg	Leu	Asp	Asp	Trp	Thr	Ala	Asn	Pro	Arg	Ile
	50				55					60					
Gly	Asp	Val	Ile	Gln	Lys	Leu	Ala	Pro	Phe	Leu	Lys	Met	Tyr	Ser	Glu
65				70					75					80	
Tyr	Val	Lys	Asn	Phe	Glu	Arg	Ala	Ala	Glu	Leu	Leu	Ala	Thr	Trp	Thr
			85				90						95		
Asp	Lys	Ser	Pro	Leu	Phe	Gln	Glu	Val	Leu	Thr	Arg	Ile	Gln	Val	Arg
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Leu	Gly	Glu	Gly	Trp	Ser	Gln	His	Cys	His	Ser	Gln	His	Ala	Val	Ala
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Gln	Val	Ala	Leu	Ser	Asp	Ser	Gly	His	Leu	Pro	Gly	Ser	Ala	Ala	Ser
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<210> 4059

<211> 3994

<212> DNA

<213> Homo sapiens

<400> 4059

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<210> 4060

<211> 714

<212> PRT

<213> Homo sapiens

<400> 4060

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Pro	Thr	Arg	Ala	Gly	Asn	Ser	Thr	Pro	Arg	Met	Gln	Phe	Val	Ser	Thr
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Arg	Pro	Gln	Pro	Gln	Gln	Leu	Gly	Ile	Gln	Gly	Leu	Gly	Leu	Asp	Ser
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Gly	Ser	Trp	Ser	Trp	Ala	Gln	Ala	Leu	Pro	Pro	Glu	Glu	Val	Cys	His
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Gln	Glu	Pro	Ala	Leu	Arg	Gly	Glu	Met	Ala	Glu	Gly	Met	Pro	Pro	Met
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Gln	Ala	Gln	Glu	Trp	Asp	Met	Asp	Ala	Arg	Arg	Pro	Met	Pro	Phe	Gln
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Phe	Pro	Pro	Phe	Pro	Asp	Arg	Ala	Pro	Val	Phe	Pro	Asp	Arg	Met	Met
	115					120					125				
Arg	Glu	Pro	Gln	Leu	Pro	Thr	Ala	Glu	Ile	Ser	Leu	Trp	Thr	Val	Val
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Ala	Ala	Ile	Gln	Ala	Met	Glu	Arg	Lys	Ile	Glu	Ser	Gln	Ala	Ala	His

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 Leu Leu Ser Leu Glu Gly Gln Thr Gly Met Ala Glu Lys Lys Leu Ala
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 Asp Cys Glu Lys Thr Ala Val Glu Phe Gly Asn Gln Leu Glu Gly Lys
 180 185 190
 Trp Ala Val Leu Gly Thr Leu Leu Gln Glu Tyr Gly Leu Leu Gln Arg
 195 200 205
 Arg Leu Glu Asn Val Glu Asn Leu Leu Arg Asn Arg Asn Phe Trp Val
 210 215 220
 Leu Arg Leu Pro Pro Gly Ser Lys Gly Glu Ala Pro Lys Val Pro Val
 225 230 235 240
 Thr Phe Val Asp Ile Ala Val Tyr Phe Ser Glu Asp Glu Trp Lys Asn
 245 250 255
 Leu Asp Glu Trp Gln Lys Glu Leu Tyr Asn Asn Leu Val Lys Glu Asn
 260 265 270
 Tyr Lys Thr Leu Met Ser Leu Asp Ala Glu Gly Ser Val Pro Lys Pro
 275 280 285
 Asp Ala Pro Val Gln Ala Glu Pro Arg Glu Glu Pro Cys Val Trp Glu
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 Gln Arg His Pro Glu Glu Arg Glu Ile Pro Met Asp Pro Glu Ala Gly
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 Ala Glu Pro Leu Val Pro Ala Gln Asp Ala Ser Ser Gln Val Lys Arg
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 Ile Pro Thr Glu Ser Ile Thr Val Asp Ser Pro Ile Ser Ala Gln Asp
 355 360 365
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 Gln Asp Leu Ala Asp Arg Asp Ile Pro Thr Asp Pro Asn Ser Glu Ser
 385 390 395 400
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 Pro Tyr Pro Trp Gly Pro Arg Asp Ser Met Asp Gly Glu Leu Gly Leu
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 Arg Ser Thr Gly Gly Gly Gly Gly Asp Gly Gly Gly Gly Gly Gly
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 Tyr Thr Cys Gly Glu Cys Gly Lys Ser Phe Arg Tyr Lys Glu Ser Leu
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<210> 4061

<211> 519

<212> DNA

<213> Homo sapiens

<400> 4061

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<212> PRT

<213> Homo sapiens

<400> 4062

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 Glu Leu Ala Ala Ile Ile Pro Leu Val Val Lys Ser Val Lys Cys Ala

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Met Val Gly Leu His Gly Arg Arg Asn Ser Gly Lys Leu Met Ser Leu		
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Asp Lys Ala Pro Leu Arg Gln Leu Leu Asp Ala Thr Ile Gly Ala Tyr		80
	85	90
Ile Asn Thr Thr His Ser Arg Leu Thr His Ile Ser Pro Arg His Tyr		95
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Ser Glu Phe Ile Glu Phe Leu Ser Lys Ala Arg Glu Thr Phe Leu Met		110
	115	120
Ala His Asp Gly His Ile Gln Phe Thr Gln Phe Ile Asp Asn Leu Lys		125
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Gln Ile Tyr Lys Gly Lys Lys Lys Leu Met Met Leu Val Arg Arg Glu		140
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<212> DNA

<213> Homo sapiens

<400> 4063

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<210> 4064

<211> 818

<212> PRT

<213> Homo sapiens

<400> 4064

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 Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
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 Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
 65 70 75 80
 Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
 85 90 95
 Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
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 Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
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 Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
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 Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
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 Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
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 Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
 210 215 220
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His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys				
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Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg				
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Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe				
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Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys				
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Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys				
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Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly				
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3254

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Lys Glu Ala Asn Thr Thr Ile Tyr Val Ile Trp Gly Pro Phe Arg Asn					
	145		150		155
Met Arg Lys Asp Gly Asn Gly Ile Val Tyr Asn Met Leu Lys Lys Thr					
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Val Gly Ile Tyr Pro Asn Ala Gln Ile Tyr Val Thr Thr Glu Lys Arg					
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<210> 4067

<211> 1800

<212> DNA

<213> Homo sapiens

<400> 4067

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<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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			20					25					30		
Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
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Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
	50					55					60				
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
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			85					90						95	
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
			100					105					110		
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
		115					120					125			
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Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

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 Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
 210 215 220
 Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
 225 230 235 240
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 260 265 270
 Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
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 355 360 365
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 Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
 385 390 395 400
 His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
 405 410 415
 Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
 420 425 430
 Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
 435 440 445
 Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
 450 455 460
 Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
 465 470 475 480
 Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
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<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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<210> 4070

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4070

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			20					25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
		35					40					45			
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
		50				55					60				
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
65					70					75				80	
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
				85					90					95	
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
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<210> 4071

<211> 601

<212> DNA

<213> Homo sapiens

<400> 4071

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 601

<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

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Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser
			20					25					30		
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
		35					40					45			
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
	50					55					60				
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
65					70					75					80
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
			85						90					95	
Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
			100					105						110	
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
		115					120						125		
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
		130				135						140			
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
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<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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			20					25					30		
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
		35					40					45			
Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
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<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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Arg	Asp	Cys	Tyr	Tyr	Asp	Asn	Ser	Thr	Thr	Cys	Pro	Lys	Cys	Ala	Arg
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<211> 783

<212> DNA

<213> Homo sapiens

<400> 4079

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<211> 101

<212> PRT

<213> Homo sapiens

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 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
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<210> 4081

<211> 645

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 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
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 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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<210> 4083
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 <212> DNA
 <213> Homo sapiens

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<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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Asp	Ile	Gln	Arg	Arg	Gln	Val	Met	Glu	Gln	His	Gln	Gln	Gln	Arg
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	130						135					140			
Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Ala	Gly	Gly	Ala	Gln	Gly	Ser	Ser
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His	Asp	Glu	Ser	Ser	Met	Ser	Gly	Leu	Ala	Ala	Ala	Ile	Ala	Gly	Ala
			165						170					175	
Lys	Leu	Arg	Arg	Val	Gln	Arg	Pro	Glu	Asp	Ala	Ser	Gly	Gly	Ser	Ser
			180					185						190	
Pro	Ser	Gly	Thr	Ser	Lys	Ser	Asp	Ala	Asn	Arg	Ala	Ser	Ser	Gly	Gly
	195						200					205			
Gly	Gly	Gly	Gly	Leu	Met	Glu	Glu	Met	Asn	Lys	Leu	Leu	Ala	Lys	Arg
	210					215					220				
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225					230					235					240
Glu	Ser	Gln	Met	Glu	Asp	Pro	Ser	Thr	Ser	Pro	Ser	Pro	Gly	Thr	Arg
			245						250					255	
Ala	Ala	Ser	Gln	Pro	Pro	Asn	Ser	Ser	Glu	Ala	Gly	Arg	Lys	Pro	Trp
		260					265						270		
Glu	Arg	Ser	Asn	Ser	Val	Glu	Lys	Pro	Val	Ser	Ser	Ile	Leu	Ser	Arg
	275						280					285			
Thr	Pro	Ser	Val	Ala	Lys	Ser	Pro	Glu	Ala	Lys	Ser	Pro	Leu	Gln	Ser
	290					295					300				
Gln	Pro	His	Ser	Arg	Met	Lys	Pro	Ala	Gly	Ser	Val	Asn	Asp	Met	Ala
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Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu	Ile	Leu	Glu	Glu
			325						330					335	
Val	Val	Arg	Glu	Leu	His	Lys	Val	Lys	Glu	Glu	Ile	Ile	Asp	Ala	Ile
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<210> 4085

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4085

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<210> 4086

<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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			20					25					30		
Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu	
		35					40					45			
Gly	Thr	Lys	Asp	Pro	Ser	Arg	Asn	Arg	Tyr	Lys	Leu	Phe	Leu	Glu	Cys
	50					55					60				
Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
65					70					75				80	
Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
			85						90					95	
Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
			100					105					110		
Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
		115				120					125				
Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
	130					135					140				
Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
145				150					155					160	
Met	Gln	Leu	Asp	Asp	Gly	Thr	Leu	Val	Gly	Asp	Pro	Leu	Glu	Lys	Ala
			165						170					175	
Met	Leu	Thr	Ala	Val	Asp	Trp	Thr	Leu	Thr	Lys	Asp	Glu	Lys	Val	Phe
		180						185					190		
Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

195	200	205
Phe Ala Ser Ala Leu Lys Arg Met Ser Val Leu Ala Ser Tyr Glu Lys		
210	215	220
Leu Gly Ser Thr Asp Leu Cys Tyr Ile Ala Ala Val Lys Gly Ala Pro		
225	230	235
Glu Thr Leu His Ser Met Phe Ser Gln Cys Pro Pro Asp Tyr His His		
245	250	255
Ile His Thr Glu Ile Ser Arg Glu Gly Ala Arg Val Leu Ala Leu Gly		
260	265	270
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		
275	280	285
Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val		
290	295	300
Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		
305	310	315
Asn Ala Ser His Arg Val Val Met Ile Thr Gly Asp Asn Pro Leu Thr		
325	330	335
Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr		
340	345	350
Leu Ile Leu Gln Pro Pro Ser Glu Lys Gly Arg Gln Cys Glu Trp Arg		
355	360	365
Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		
370	375	380
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		
385	390	395
Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro		
405	410	415
His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val		
420	425	430
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp		
435	440	445
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala		
450	455	460
Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg Arg Arg Arg Pro		
465	470	475
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg		
485	490	495
Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr		
500	505	510
Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu		
515	520	525
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe		
530	535	540
Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		
545	550	555
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala		
565	570	575
Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val Leu Tyr Leu Glu		
580	585	590
Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		
595	600	605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		
610	615	620
Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu		

625 630 635 640
 Thr Val Met Leu Gln Phe Phe Val His Phe Leu Ser Leu Val Tyr Leu
 645 650 655
 Tyr Arg Glu Ala Gln Ala Arg Ser Pro Xaa Arg Xaa Gln Glu Gln Phe
 660 665 670
 Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
 675 680 685
 Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
 690 695 700
 Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
 705 710 715 720
 Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Leu Gly
 725 730 735
 Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
 740 745 750
 Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
 755 760 765
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 Leu Lys Val Pro Ser
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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 180
 aatcgagggc atggtggggg atttttgaca tcttgcaag cagaactaca ggagctcatg
 240
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 360
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 420
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 480
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 540
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 660
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 720
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 780

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 840
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<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

Arg	Gly	Ser	Leu	Glu	Lys	Ala	Leu	Phe	Gln	Leu	Leu	Lys	Val	Trp	Gly
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	20						25					30			
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
	35						40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55					60				
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65					70					75				80	
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
			85						90					95	
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
		115					120					125			
Leu	His	Gln	Gln	Val	Glu	Glu	His	Glu	Lys	Ile	Lys	Gln	Glu	Met	Thr
	130						135					140			
Met	Glu	Tyr	Lys	Gln	Glu	Leu	Lys	Lys	Leu	His	Glu	Glu	Leu	Cys	Ile
145					150					155				160	
Leu	Lys	Arg	Ser	Tyr	Glu	Lys	Leu	Gln	Lys	Lys	Gln	Met	Arg	Glu	Phe
			165					170					175		
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
		180						185					190		
Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
	195						200					205			
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
	210					215						220			
Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
225					230					235				240	
Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
			245						250				255		
Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260						265					270		
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
	275						280					285			
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
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<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4089
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<210> 4090
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 4090
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 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
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 Ser Pro Cys Ser Glu Asp Pro Ser His Leu Val Thr Ala Pro Trp Ala
 85 90 95
 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
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<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

<400> 4091
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1380
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1526

<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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 Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
 35 40 45
 Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50 55 60
 Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65 70 75 80
 Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85 90 95
 Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
 100 105 110
 Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
 115 120 125
 Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
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 Ser Asn
 145

<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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 240
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 360
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 420
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 480
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 540
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 600
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 660
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 720

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 780
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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
		20						25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50				55						60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65				70					75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115				120						125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
	130				135						140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

145 150 155 160
 Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
 165 170 175
 Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
 180 185 190
 Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
 195 200 205
 Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
 210 215 220
 Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
 225 230 235 240
 Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
 245 250 255
 Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
 260 265 270
 Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
 275 280 285
 Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
 290 295 300
 Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
 305 310 315 320
 Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
 325 330 335
 Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
 340 345 350
 Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
 355 360 365
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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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 120
 agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg
 180
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 253

<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
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 Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Gly Phe Ser Ser Thr Val
 20 25 30
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
 35 40 45
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
 50 55 60
 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
 65 70 75 80
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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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 120
 cgtgctgtcc tcaattgttc tacaatgagt gccaaatctg ctatcagcaa ggaaattttt
 180
 gcacctcttg atgaaaggat gctgggagct gtccaagtca agaggaggac aaagaaaaag
 240
 attcctttct tggcaactgg aggtcaaggc gaatatttaa cttatatctg cctgtcagt
 300
 acaaacaaga aaccacaca ggcgtccatc acaaaggcca aacagtttga aggtccaca
 360
 tcatttgttc ggagatcaca gtggatgttc gagcagcttc gccagggtta tggatcagat
 420
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 480
 gccagcacag cgtcagaaaa atgcaccttc ttccagatcc tccaccatac ctgccagagg
 540
 tacctcacgg acaggaagcc agagtttatt aactgccaat ccaaaattat gggaggaaac
 600
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 660
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 780
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 960
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 1020

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 1080
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 1140
 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggt gacatcagat
 1200
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 1260
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 1380
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 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

Ser	Gly	Ala	Arg	Ser	Pro	Glu	Pro	Arg	Ala	Gly	Gln	Pro	Pro	Gly	Glu
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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
			50				55				60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65					70					75				80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
			130				135				140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165					170						175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
			195				200						205		
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
			210				215				220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235				240	
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
			245					250						255	

Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4099
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 120
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 180
 tgaggtttg caattcactg agaaggactc acaggactca gcagatagtc atacttgggg
 240
 ctttgattta ttacatttaa tacagcaaaa agacacaaag caacatttga gaaaggaaaa
 300
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 360
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 511

<210> 4100
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 <212> PRT
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<400> 4100
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 20 25 30
 Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His
 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
 85 90 95
 Pro Glu Phe His
 100

<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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 120
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 180
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 240
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 300
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 360
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 420
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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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Arg	Val	Cys	Thr	Arg	Tyr	Lys	Ile	Gln	Glu	Arg	Trp	His	Thr	Ala	Asp
			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
			35				40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
			50			55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65				70					75					80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
			85					90					95		
Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
			100					105							

<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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 240

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420
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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Ser	Glu	Ala	Asp	Arg	Ala	Gln	Lys	Met	Asp	Gly	Glu	Ser	Glu	Glu	Glu
		20					25				30				
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
		35				40				45					
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50				55					60					
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

65					70					75				80	
Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys	Ser
				85					90					95	
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
			100					105					110		
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile	Leu
		115					120					125			
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu	Thr
		130				135					140				
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr	Pro
145				150						155				160	
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
			165						170					175	
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val	Lys
		180						185					190		
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu	Cys
		195					200						205		
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly	Cys
		210				215					220				
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu	Ser
225				230						235				240	
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn	Asn
			245						250					255	
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys	Glu
		260						265					270		
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Val	Pro
		275					280					285			
Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr	Thr
		290				295					300				
Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys	Arg
305				310						315				320	
Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro	Ala
			325						330					335	
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Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
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Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
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Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala	Ala
		435					440					445			
Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly	Ala
		450				455					460				
Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu	Ala
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			485						490					495	
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3289

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 <212> DNA
 <213> Homo sapiens

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 Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala
 115 120 125
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 130 135 140
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<212> DNA

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<400> 4107

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<212> PRT

<213> Homo sapiens

<400> 4108

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Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
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Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
			50			55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
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Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
				85					90					95	
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
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Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
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Arg	Ile	Ala	Trp	Thr	His	Ile	Thr	Ile	Pro	Glu	Ser	Leu	Arg	Gln	Gly
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Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
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Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
			165					170						175	
Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
			180					185					190		
Gln	Gln	Gly	Val	Gly	Tyr	Val	Pro	Ile	Thr	Gly	Met	Pro	Ala	Val	Cys
			195				200					205			
Ser	Pro	Gly	Met	Val	Pro	Val	Ala	Leu	Pro	Pro	Ala	Ala	Val	Asn	Ala

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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg		240
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<210> 4110

<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
		35					40					45			
His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
		50				55				60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
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Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
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Gly	Pro	Asn	Gly	Val	Trp	Thr	Leu	Leu	Gln	Lys	Gly	Arg	Ser	Val	Ser
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			165					170					175		
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		180					185						190		
His	Arg	His	Gln	Thr	Gly	Arg	Thr	Cys	His	Lys	Cys	Gly	Thr	Gln	Leu
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	260		265		270	
Leu Gln Trp Thr Pro Lys Asp Asp Trp Ala Ala Leu Lys Leu His Gly						
	275		280		285	
Lys Cys Asp Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu						
	290		295		300	
Ile Pro Ala Tyr Ser Arg Trp Gln Asp Pro Ile Phe Ser Leu Ala Thr						
305		310		315		320
Pro Leu Arg Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys						
	325		330		335	
Arg Ser Arg Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser						
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<211> 2599

<212> DNA

<213> Homo sapiens

<400> 4111

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<211> 775

<212> PRT

<213> Homo sapiens

<400> 4112

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		20						25					30		
Leu	Arg	Glu	Ala	Ala	Thr	Gln	Ala	Gln	Gln	Thr	Leu	Gly	Ser	Thr	Ile
	35					40					45				
Asp	Lys	Ala	Thr	Gly	Ile	Leu	Leu	Tyr	Gly	Leu	Ala	Ser	Arg	Leu	Arg
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Asp	Thr	Arg	Arg	Leu	Ser	Phe	Leu	Val	Ser	Tyr	Ile	Ala	Ser	Lys	Lys
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Ile	His	Thr	Glu	Pro	Gln	Leu	Ser	Ala	Ala	Leu	Glu	Tyr	Val	Arg	Ser
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His	Pro	Leu	Asp	Pro	Ile	Asp	Thr	Val	Asp	Phe	Glu	Arg	Glu	Cys	Gly
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Val	Gly	Val	Ile	Val	Thr	Pro	Glu	Gln	Ile	Glu	Glu	Ala	Val	Glu	Ala
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Ala	Ile	Asn	Arg	His	Arg	Pro	Gln	Leu	Leu	Val	Glu	Arg	Tyr	His	Phe
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Thr	Asn	Pro	Glu	Lys	Glu	Glu	Ala	Lys	Phe	Phe	Thr	Ala	Ile	Cys	Asp
305					310					315				320	
Met	Val	Ala	Trp	Leu	Gly	Tyr	Thr	Pro	Tyr	Lys	Val	Thr	Tyr	Ala	Ser

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      325      330      335
Asp Tyr Phe Asp Gln Leu Tyr Ala Trp Ala Val Glu Leu Ile Arg Arg
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Gly Leu Ala Tyr Val Cys His Gln Arg Gly Glu Glu Leu Lys Gly His
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Asn Thr Leu Pro Ser Pro Trp Arg Asp Arg Pro Met Glu Glu Ser Leu
      370      375      380
Leu Leu Phe Glu Ala Met Arg Lys Gly Lys Phe Ser Glu Gly Glu Ala
      385      390      395      400
Thr Leu Arg Met Lys Leu Val Met Glu Asp Gly Lys Met Asp Pro Val
      405      410      415
Ala Tyr Arg Val Lys Tyr Thr Pro His His Arg Thr Gly Asp Lys Trp
      420      425      430
Cys Ile Tyr Pro Thr Tyr Asp Tyr Thr His Cys Leu Cys Asp Ser Ile
      435      440      445
Glu His Ile Thr His Ser Leu Cys Thr Lys Glu Phe Gln Ala Arg Arg
      450      455      460
Ser Ser Tyr Phe Trp Leu Cys Asn Ala Leu Asp Val Tyr Cys Pro Val
      465      470      475      480
Gln Trp Glu Tyr Gly Arg Leu Asn Leu His Tyr Ala Val Val Ser Lys
      485      490      495
Arg Lys Ile Leu Gln Leu Val Ala Thr Gly Ala Val Arg Asp Trp Asp
      500      505      510
Asp Pro Arg Leu Phe Thr Leu Thr Ala Leu Arg Arg Arg Gly Phe Pro
      515      520      525
Pro Glu Ala Ile Asn Asn Phe Cys Ala Arg Val Gly Val Thr Val Ala
      530      535      540
Gln Thr Thr Met Glu Pro His Leu Leu Glu Ala Cys Val Arg Asp Val
      545      550      555      560
Leu Asn Asp Thr Ala Pro Arg Ala Met Ala Val Leu Glu Ser Leu Arg
      565      570      575
Val Ile Ile Thr Asn Phe Pro Ala Ala Lys Ser Leu Asp Ile Gln Val
      580      585      590
Pro Asn Phe Pro Ala Asp Glu Thr Lys Gly Phe His Gln Val Pro Phe
      595      600      605
Ala Pro Ile Val Phe Ile Glu Arg Thr Asp Phe Lys Glu Glu Pro Glu
      610      615      620
Pro Gly Phe Lys Arg Leu Ala Trp Gly Gln Pro Val Gly Leu Arg His
      625      630      635      640
Thr Gly Tyr Val Ile Glu Leu Gln His Val Val Lys Gly Pro Ser Gly
      645      650      655
Cys Val Glu Ser Leu Glu Val Thr Cys Arg Arg Ala Asp Ala Gly Glu
      660      665      670
Lys Pro Lys Ala Phe Ile His Trp Val Ser Gln Pro Leu Met Cys Glu
      675      680      685
Val Arg Leu Tyr Glu Arg Leu Phe Gln His Lys Asn Pro Glu Asp Pro
      690      695      700
Thr Glu Val Pro Gly Gly Phe Leu Ser Asp Leu Asn Leu Ala Ser Leu
      705      710      715      720
His Val Val Asp Ala Leu Val Asp Cys Ser Val Ala Leu Ala Lys
      725      730      735
Pro Phe Asp Lys Phe Gln Phe Glu Arg Leu Gly Tyr Phe Ser Val Asp
      740      745      750
Pro Asp Ser His Gln Gly Lys Leu Val Phe Asn Arg Thr Val Thr Leu

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Lys Glu Asp Pro Gly Lys Val
770 775

765

<210> 4113
<211> 1894
<212> DNA
<213> Homo sapiens

<400> 4113
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1320

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 1894

<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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			20					25					30		
Lys	Ala	Leu	Cys	Thr	Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp	Ser
		35					40					45			
Pro	Ser	Pro	Asp	Arg	Phe	Gly	Met	Leu	Pro	Leu	Asp	Glu	Pro	Ala	Ile
		50				55					60				
Leu	Val	Ser	Glu	Phe	Leu	Asp	Arg	Phe	Gln	Ser	Leu	Cys	His	Leu	Asp
65					70				75					80	
Leu	Gln	Leu	Pro	Ser	Leu	Arg	Pro	Glu	Asp	Leu	Lys	Thr	Met	Cys	Leu
			85					90						95	
Thr	Glu	Asp	Lys	Ile	Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu	Leu
			100					105					110		
Asp	His	Arg	Thr	Asp	Glu	Arg	Lys	Thr	Thr	Ile	Lys	Leu	Gly	Ser	Asp
		115					120					125			
Ile	Gln	Val	His	Val	Thr	Ala	Cys	Ile	Leu	Ser	Val	Cys	Gly	Trp	Ala
		130				135					140				
Cys	Ser	Ser	Ser	Leu	Glu	Ser	Met	Gln	Leu	Ser	Leu	Ile	Ala	Cys	Ser
145					150					155				160	
Gln	Cys	Met	Arg	Lys	Val	Gly	Leu	Trp	Gly	Phe	Gln	Gln	Ile	Glu	Ser
			165					170						175	
Ser	Met	Thr	Asp	Leu	Asp	Ala	Ser	Phe	Gly	Leu	Thr	Ser	Ser	Pro	Ile
		180						185					190		
Pro	Gly	Leu	Glu	Gly	Arg	Pro	Glu	Arg	Leu	Pro	Leu	Val	Pro	Glu	Ser
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Pro	Arg	Arg	Met	Met	Thr	Arg	Ser	Gln	Asp	Ala	Thr	Phe	Ser	Pro	Gly

210		215		220
Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg				
225		230		235
Ser Trp Asp Ser Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala				240
	245		250	255
Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly				
	260		265	270
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln				
	275		280	285
Ala Ser Ser Leu Cys Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser				
	290		295	300
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn				
305		310		315
Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp				320
	325		330	335
Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu				
	340		345	350
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser				
	355		360	365
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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720

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<210> 4116

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4116

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Thr	Ala	Ser	Pro	Gly	Glu	Asn	Lys	Ser	Pro	Pro	Arg	Pro	Cys	Gly	Leu
			20					25					30		
Asn	His	Ser	Asp	Ser	Leu	Ser	Arg	Ser	Asp	Arg	Ile	Asp	Ala	Val	Thr
			35				40					45			
Pro	Thr	Leu	Gly	Ser	Ser	Asn	Asn	Gln	Leu	Asn	Ser	Ser	Leu	Leu	Gln
			50				55				60				
Val	Tyr	Ile	Pro	Asp	Tyr	Ser	Val	Arg	Ala	Leu	Ser	Asp	Leu	Gln	Phe
65					70				75						80
Val	Lys	Ile	Ser	Arg	Gln	Gln	Tyr	Gln	Asn	Ala	Leu	Met	Ala	Ser	Arg
				85					90					95	
Met	Asp	Lys	Thr	Pro	Gln	Ser	Ser	Asp	Ser	Glu	Asn	Thr	Lys	Ile	Glu
			100					105					110		
Leu	Thr	Leu	Thr	Glu	Leu	His	Asp	Gly	Leu	Pro	Asp	Glu	Thr	Ala	Asn
			115				120					125			
Leu	Leu	Asn	Glu	Gln	Asn	Cys	Val	Thr	His	Ser	Lys	Ala	Asn	His	Ser
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<210> 4117

<211> 973

<212> DNA

<213> Homo sapiens

<400> 4117

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240

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<210> 4118

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4118

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His	Leu	Gly	Pro	Gln	Ala	Gln	Pro	Ala	Val	Gln	Ala	His	Asp	Trp	Pro
		20						25					30		
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
		35					40					45			
Arg	Cys	Val	Gly	Cys	Pro	Arg	Pro	Ala	Arg	Pro	Ala	Ser	Pro	Ser	Pro
		50				55					60				
Gly	Glu	Ala	Thr	Pro	Pro	Pro	Ser	Ser	Gly	Ile	Ser	Ala	Val	Lys	Pro
65					70					75				80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
			85						90					95	
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
			100					105					110		
Pro	Pro	Ala	Val	Leu	Cys	Pro	Gln	Gly	Leu	Gly	Arg	His	Gln	Arg	Leu
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<210> 4119

<211> 649

<212> DNA

<213> Homo sapiens

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<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
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<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

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480
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<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Gly	Lys	Gln	Ala	Glu	Ser	Arg
		20						25					30		
Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35					40					45			
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Leu	Gln	Gly	Phe
	50				55					60					
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
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Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
			85				90						95		
Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
		100					105					110			
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
		115				120						125			
Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
	130					135					140				
Ala	Ile	Leu	Asn	Thr	Met	Ser	Gln	Glu	Leu	Val	Pro	Ala	Ser	Arg	Val

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 Ala Leu Ala Gly Glu Tyr Gly Ala Val Thr Tyr Arg Lys Ser Lys Arg
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 Gly Pro Lys Gln Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg
 180 185 190
 Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
 195 200 205
 Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
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 Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
 225 230 235 240
 Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
 245 250 255
 Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
 260 265 270
 His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
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 Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
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 Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
 305 310 315 320
 Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
 325 330 335
 Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
 340 345 350
 Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
 355 360 365
 Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
 370 375 380
 Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
 385 390 395 400
 Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
 405 410 415
 Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
 420 425 430
 Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
 435 440 445
 Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
 450 455 460
 Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
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 Cys Gln Ala Ala Leu Leu Leu Cys Ser Trp Arg Ala Ala Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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120

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<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

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		20						25					30		
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
	35					40					45				
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val	His	Trp
	50				55					60					
Ala	Ala	His	Phe	Gly	Lys	Leu	Glu	Cys	Leu	Val	Gln	Leu	Val	Arg	Ala
65				70					75					80	
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr	Pro	Ala
			85					90					95		
His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile

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Gln Ala Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro		
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<210> 4125

<211> 4711

<212> DNA

<213> Homo sapiens

<400> 4125

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<210> 4126

<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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			20					25					30		
Ala	Leu	Ala	Ser	Glu	Gln	Gly	Ala	Ser	Cys	Ser	Val	Arg	Ala	Pro	Glu
	35					40					45				
Arg	Lys	Leu	Arg	Met	Lys	Leu	Leu	Trp	Gln	Ala	Lys	Met	Ser	Ser	Ile
	50				55				60						
Gln	Asp	Trp	Gly	Glu	Glu	Val	Glu	Glu	Gly	Ala	Val	Tyr	His	Val	Thr
65				70					75					80	
Leu	Lys	Arg	Val	Gln	Ile	Gln	Gln	Ala	Ala	Asn	Lys	Gly	Ala	Arg	Trp
			85						90					95	
Leu	Gly	Val	Glu	Gly	Asp	Gln	Leu	Pro	Pro	Gly	His	Thr	Val	Ser	Gln
			100					105					110		
Tyr	Glu	Thr	Cys	Lys	Ile	Arg	Thr	Ile	Lys	Ala	Gly	Thr	Leu	Glu	Lys
	115						120					125			
Leu	Val	Glu	Asn	Leu	Leu	Thr	Ala	Phe	Gly	Asp	Asn	Asp	Phe	Thr	Tyr
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Ile	Ser	Ile	Phe	Leu	Ser	Thr	Tyr	Arg	Gly	Phe	Ala	Ser	Thr	Lys	Glu
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Val	Leu	Glu	Leu	Leu	Asp	Arg	Tyr	Gly	Asn	Leu	Thr	Ser	Pro	Asn	
			165					170					175		
Cys	Glu	Glu	Asp	Gly	Ser	Gln	Ser	Ser	Ser	Glu	Ser	Lys	Met	Val	Ile
			180				185						190		
Arg	Asn	Ala	Ile	Ala	Ser	Ile	Leu	Arg	Ala	Trp	Leu	Asp	Gln	Cys	Ala
	195						200					205			
Glu	Asp	Phe	Arg	Glu	Pro	Pro	His	Phe	Pro	Cys	Leu	Gln	Lys	Leu	Leu
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Asp	Tyr	Leu	Thr	Arg	Met	Met	Pro	Gly	Ser	Asp	Pro	Glu	Arg	Arg	Ala
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Gln	Asn	Leu	Leu	Glu	Gln	Phe	Gln	Lys	Gln	Glu	Val	Glu	Thr	Asp	Asn
			245					250					255		
Gly	Leu	Pro	Asn	Thr	Ile	Ser	Phe	Ser	Leu	Glu	Glu	Glu	Glu	Glu	Leu
			260				265						270		
Glu	Gly	Gly	Glu	Ser	Ala	Glu	Phe	Thr	Cys	Phe	Ser	Glu	Asp	Leu	Val
	275					280						285			
Ala	Glu	Gln	Leu	Thr	Tyr	Met	Asp	Ala	Gln	Leu	Phe	Lys	Lys	Val	Val

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 His Glu Cys Arg Leu Leu Lys Asn Phe Ser Ser Leu Arg Ala Ile Val
 370 375 380
 Ser Ala Leu Gln Ser Asn Ser Ile Tyr Arg Leu Lys Lys Thr Trp Ala
 385 390 395 400
 Ala Val Pro Arg Asp Arg Met Leu Met Phe Glu Glu Leu Ser Asp Ile
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 675 680 685
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	755		760		765
Phe Tyr Ala Met Asn Ser Gln Val Asn Phe Asp Phe Ile Leu Arg Lys					
	770		775		780
Lys Asn Ser Met Glu Glu Gln Val Lys Leu Arg Ser Arg Thr Ser Leu					
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 1860
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 1920
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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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Gln	Trp	Leu	Ser	Ala	Ala	Glu	Arg	Leu	Tyr	Gly	Pro	Tyr	Met	Trp	Gly
		20						25					30		
Arg	Tyr	Asp	Ile	Val	Phe	Leu	Pro	Pro	Ser	Phe	Pro	Ile	Val	Ala	Met
		35					40					45			
Glu	Asn	Pro	Cys	Leu	Thr	Phe	Ile	Ile	Ser	Ser	Ile	Leu	Glu	Ser	Asp

50 55 60
 Glu Phe Leu Val Ile Asp Val Ile His Glu Val Ala His Ser Trp Phe
 65 70 75 80
 Gly Asn Ala Val Thr Asn Ala Thr Trp Glu Glu Met Trp Leu Ser Glu
 85 90 95
 Gly Leu Ala Thr Tyr Ala Gln Arg Arg Ile Thr Thr Glu Thr Tyr Gly
 100 105 110
 Ala Ala Phe Thr Cys Leu Glu Thr Ala Phe Arg Leu Asp Ala Leu His
 115 120 125
 Arg Gln Met Lys Leu Leu Gly Glu Asp Ser Pro Val Ser Lys Leu Gln
 130 135 140
 Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe
 145 150 155 160
 Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys
 165 170 175
 Gly Asp Pro Gln Arg Phe Asp Asp Phe Leu Arg Ala Tyr Val Glu Lys
 180 185 190
 Tyr Lys Phe Thr Ser Val Val Ala Gln Asp Leu Leu Asp Ser Phe Leu
 195 200 205
 Ser Phe Phe Pro Glu Leu Lys Glu Gln Ser Val Asp Cys Arg Ala Gly
 210 215 220
 Leu Glu Phe Glu Arg Trp Leu Asn Ala Thr Gly Pro Pro Leu Ala Glu
 225 230 235 240
 Pro Asp Leu Ser Gln Gly Ser Ser Leu Thr Arg Pro Val Glu Ala Leu
 245 250 255
 Phe Gln Leu Trp Thr Ala Glu Pro Leu Asp Gln Ala Ala Ser Ala
 260 265 270
 Ser Ala Ile Asp Ile Ser Lys Trp Arg Thr Phe Gln Thr Ala Leu Phe
 275 280 285
 Leu Asp Arg Leu Leu Asp Gly Ser Pro Leu Pro Gln Glu Val Val Met
 290 295 300
 Ser Leu Ser Lys Cys Tyr Ser Ser Leu Leu Asp Ser Met Asn Ala Glu
 305 310 315 320
 Ile Arg Ile Arg Trp Leu Gln Ile Val Val Arg Asn Asp Tyr Tyr Pro
 325 330 335
 Asp Leu His Arg Val Arg Arg Phe Leu Glu Ser Gln Met Ser Arg Met
 340 345 350
 Tyr Thr Ile Pro Leu Tyr Glu Asp Leu Cys Thr Gly Ala Leu Lys Ser
 355 360 365
 Phe Ala Leu Glu Val Phe Tyr Gln Thr Gln Gly Arg Leu His Pro Asn
 370 375 380
 Leu Arg Arg Ala Ile Gln Gln Ile Leu Ser Gln Gly Leu Gly Ser Ser
 385 390 395 400
 Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala
 405 410 415
 Asp Thr Asp Ser Asp Ala Gln Ala Leu Leu Gly Asp Glu Ala Pro
 420 425 430
 Ser Ser Ala Ile Ser Leu Arg Asp Val Asn Val Ser Ala
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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

<400> 4129

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120
cgccctgtc ctgggagtc cttggcccaa acacccacct gacttagtgg ctctctgca
180
ggaaagggg ctgcccctg cgttctcca tccaatcatg agctgggtgc catcaccact
240
gagaatgcac cagagaatgt agtgaccag ggagcaggag cctcccgagg tggaaacaca
300
cggaaaagcc tcgaggaca cggctccacc agggtcaccc cgagtgtcca gcccacctc
360
cagcccatca gaaacatgag tgtgagccg accatggagg acagctgtga gctggacctg
420
gtgtacgtca cagagaggat catcgtgtc tccttccca gcacagcaa tgaggagaac
480
ttccggagca acctcgtga ggtggcgag atgtcaagt ccaaacatgg aggcaactac
540
ctgtgttca acctctctga gcggagacct gacatcacga agtccatgc caaggtactg
600
gaatttggt ggcccgacct ccacaccca gccctggaga agatctgcag catctgtaag
660
gccatggaca catggctcaa tgcagacct cacaatgtcg ttgttctaca caacaagga
720
aaccgaggca ggataggagt tgtcatcgc gcttacatgc actacagcaa ctttctgccc
780
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1020
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atcgagccag gactgtctt gaaggagac atcttgctga agtgctacca caagaagttc
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1200
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1260
gagtatggca aagtggagt tgtatttct tatgggccag agaaaattca aggcattggg
1320
cacctggaga acgggccgag cgtgtctgtg gactataaca cctccgacct cctcatccg
1380
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1560

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 1620
 gacaagaccg acgagcctgt ccccggggcc tccagtgcc atgctgcccg cactgtgacc
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 1749

<210> 4130

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4130

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Ser	Asn	His	Glu	Leu	Val	Pro	Ile	Thr	Glu	Asn	Ala	Pro	Glu	Asn	
			20					25				30			
Val	Val	Asp	Gln	Gly	Ala	Gly	Ala	Ser	Arg	Gly	Gly	Asn	Thr	Arg	Lys
		35				40					45				
Ser	Leu	Glu	Asp	Asn	Gly	Ser	Thr	Arg	Val	Thr	Pro	Ser	Val	Gln	Pro
	50				55					60					
His	Leu	Gln	Pro	Ile	Arg	Asn	Met	Ser	Val	Ser	Arg	Thr	Met	Glu	Asp
65				70					75				80		
Ser	Cys	Glu	Leu	Asp	Leu	Val	Tyr	Val	Thr	Glu	Arg	Ile	Ile	Ala	Val
			85					90				95			
Ser	Phe	Pro	Ser	Thr	Ala	Asn	Glu	Glu	Asn	Phe	Arg	Ser	Asn	Leu	Arg
		100					105					110			
Glu	Val	Ala	Gln	Met	Leu	Lys	Ser	Lys	His	Gly	Gly	Asn	Tyr	Leu	Leu
		115				120						125			
Phe	Asn	Leu	Ser	Glu	Arg	Arg	Pro	Asp	Ile	Thr	Lys	Leu	His	Ala	Lys
	130					135					140				
Val	Leu	Glu	Phe	Gly	Trp	Pro	Asp	Leu	His	Thr	Pro	Ala	Leu	Glu	Lys
145				150					155				160		
Ile	Cys	Ser	Ile	Cys	Lys	Ala	Met	Asp	Thr	Trp	Leu	Asn	Ala	Asp	Pro
			165					170				175			
His	Asn	Val	Val	Val	Leu	His	Asn	Lys	Gly	Asn	Arg	Gly	Arg	Ile	Gly
		180					185					190			
Val	Val	Ile	Ala	Ala	Tyr	Met	His	Tyr	Ser	Asn	Ile	Ser	Ala	Ser	Ala
	195					200					205				
Asp	Gln	Ala	Leu	Asp	Arg	Phe	Ala	Met	Lys	Arg	Phe	Tyr	Glu	Asp	Lys
	210					215					220				
Ile	Val	Pro	Ile	Gly	Gln	Pro	Ser	Gln	Arg	Arg	Tyr	Val	His	Tyr	Phe
225				230					235				240		
Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Lys	Met	Asn	Asn	Lys	Pro	Leu	Phe
		245						250				255			
Leu	His	His	Val	Ile	Met	His	Gly	Ile	Pro	Asn	Phe	Glu	Ser	Lys	Gly
		260					265					270			
Gly	Cys	Arg	Pro	Phe	Leu	Arg	Ile	Tyr	Gln	Ala	Met	Gln	Pro	Val	Tyr
	275					280					285				
Thr	Ser	Gly	Ile	Tyr	Asn	Ile	Pro	Gly	Asp	Ser	Gln	Thr	Ser	Val	Cys
	290				295					300					
Ile	Thr	Ile	Glu	Pro	Gly	Leu	Leu	Leu	Lys	Gly	Asp	Ile	Leu	Leu	Lys

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<210> 4131
<211> 608
<212> DNA
<213> Homo sapiens
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120
aaaggcctga gacccgttta tgaagagctc gactctgact ccgaggacct agaccccaat
180
cctgaagatc tggacccggt ttctgaagac ccagagcctg atcctgaaga cctcaacact
240
gtcccggaag acgtggaccc cagctatgaa gatctggagc ccgtctcgga ggatctggac
300
cccgacgccg aagctccggg ctccggaaccc caagatcccg accccatgtc ttcgagtttc
360
gacctcgatc cagatgtgat tggccccgta cccctgattc tcgatcctaa cagcgacacc
420
ctcagccccg gcgatccaaa agtggacccc nnatctcttc tggcctcact gcgagccccc
480
aggtcttggc caccagcccc gcggtgctcc ccgccccgcg cagccccgcc cggcccttct
540
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600

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cgcacagc

608

<210> 4132

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4132

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Arg Pro Ala Arg Ala Arg Arg Ala Gly Gln Gly Arg Gly Ala Pro Gly
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Leu Ala Pro Glu Ala Ala Gly Thr Ser Thr Pro Glu Met Arg Arg Ser
      20           25           30
Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
      35           40           45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
 50           55           60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65           70           75           80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
      85           90           95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
      100           105           110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
      115           120           125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
      130           135           140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
145           150           155           160
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Pro Ala Arg
      165           170           175
Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
      180           185           190
Pro Gly

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<210> 4133

<211> 1646

<212> DNA

<213> Homo sapiens

<400> 4133

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120
gaaatgggct gggagacaca gaaaatgggt gccacagtt cctgggatcc ctctggaat
180
cctgggtttc cctctagga cctgcaagg taccctacgt gcctcctgga accccccccc
240
accccgagg tcccaaggaa ccagtttga gaaccaaggc tttaggcaa ggacttcctt
300
gcacaagaag gtgcagatgt acagggatgg ttcagacagt ggctcaacc tcaatggctt
360

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catcctcctc ctccagcagg ctgtaggaag catggtctcg gcaaggccgc tgcagggggg
 420
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 480
 catacttgta gctggtaccc ttggtatcca ggctgcccac gaaggcaaac atatccttcc
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 aatatgggca ctggaacatt ttcttcatgg gctccgtcaa ggagaactgg ggctggcaag
 660
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 780
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 1020
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 1080
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 1440
 gggaaatgta gttcagcggg ctgcagaaca agcagagaca gaaactggtt gaggctagaa
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 1560
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 1620
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 1646

<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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 Glu Glu His Ser Ala Glu Pro Arg Pro Arg Thr Arg Ser Asn Pro Glu

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<210> 4135
<211> 388
<212> DNA
<213> Homo sapiens
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120
tctgccattg ctggaaaaac tgaccacagg ccggattgca gagctgctat ctcccgacta
180
catggatctt gaggaccac gaccaatctt tgactggatg cagatcatcc gcaaacgggc
240
```

agtgggtctat gtcggcctgg acgctttatc tgatacagag gtagctgcag cggtagggcaa
 300
 ctcatgttcc agcgacctgg tgtcagttgc gggtcacatc tataagtttg gcatcgtatga
 360
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 388

<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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Arg	Ser	Ala	Val	Arg	Tyr	Asp	Lys	Thr	Tyr	Phe	Asp	Lys	Ile	Val
			20				25					30		
Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys	Leu	Thr	Thr	Gly	Arg	Ile	Ala
		35					40				45			
Leu	Leu	Ser	Pro	Asp	Tyr	Met	Asp	Leu	Glu	Asp	Pro	Arg	Pro	Ile
		50				55				60				
Asp	Trp	Met	Gln	Ile	Ile	Arg	Lys	Arg	Ala	Val	Val	Tyr	Val	Gly
65				70					75				80	
Asp	Ala	Leu	Ser	Asp	Thr	Glu	Val	Ala	Ala	Ala	Val	Gly	Asn	Ser
			85					90				95		
Phe	Ser	Asp	Leu	Val	Ser	Val	Ala	Gly	His	Ile	Tyr	Lys	Phe	Gly
			100					105				110		
Asp	Asp	Gly	Leu	Pro	Gly	Ala	Thr	Gly	Gly	Lys				
		115					120							

<210> 4137

<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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 120
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 180
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 240
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 300
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 360
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 420
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 480
 cttgagggag ttctgtagct gctccaaaaa attctcgagg ctccggattt ctatgtgcag
 540

atgaaatggg aattcaccag ctgggtgccc ttggtttcta gaatatgccc aaatgatgtc
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660
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720
gagttaatgg aagtcaacca tgatgacaaa gtggtcacca ccgaacgctt cgacctttcc
780
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960
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1080
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1140
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1320
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1920
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1980
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2100
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2160

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 2220
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<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138

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Val	Trp	Lys	Asn	Asp	Tyr	Arg	Gln	Leu	Glu	Lys	Glu	Leu	Gln	Gly	Gln
			20					25					30		
Asn	Val	Glu	Ala	Val	Asp	Pro	Arg	Gly	Arg	Thr	Leu	Leu	His	Leu	Ala
			35					40					45		
Val	Ser	Leu	Gly	His	Leu	Glu	Ser	Ala	Arg	Val	Leu	Leu	Arg	His	Lys
	50					55				60					
Ala	Asp	Val	Thr	Lys	Glu	Asn	Arg	Gln	Gly	Trp	Thr	Val	Leu	His	Glu
65				70						75				80	
Ala	Val	Ser	Thr	Gly	Asp	Pro	Glu	Met	Val	Tyr	Thr	Val	Leu	Gln	His
			85						90					95	
Arg	Asp	Tyr	His	Asn	Thr	Ser	Met	Ala	Leu	Glu	Gly	Val	Pro	Glu	Leu
			100					105					110		
Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
	115						120					125			
Glu	Phe	Thr	Ser	Trp	Val	Pro	Leu	Val	Ser	Arg	Ile	Cys	Pro	Asn	Asp
	130						135				140				
Val	Cys	Arg	Ile	Trp	Lys	Ser	Gly	Ala	Lys	Leu	Arg	Val	Asp	Ile	Thr
145				150						155				160	
Leu	Leu	Gly	Phe	Glu	Asn	Met	Ser	Trp	Ile	Arg	Gly	Arg	Arg	Ser	Phe
			165						170					175	
Ile	Phe	Lys	Gly	Glu	Asp	Asn	Trp	Ala	Glu	Leu	Met	Glu	Val	Asn	His
		180						185					190		
Asp	Asp	Lys	Val	Val	Thr	Thr	Glu	Arg	Phe	Asp	Leu	Ser	Gln	Glu	Met
	195						200					205			
Glu	Arg	Leu	Thr	Leu	Asp	Leu	Met	Lys	Pro	Lys	Ser	Arg	Glu	Val	Glu
	210					215					220				
Arg	Arg	Leu	Thr	Ser	Pro	Val	Ile	Asn	Thr	Ser	Leu	Asp	Thr	Lys	Asn
225					230					235				240	
Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
			245						250					255	
Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
		260						265					270		
Asn	Val	Asn	Val	Ile	Thr	Lys	Ile	Arg	Thr	Glu	His	Leu	Thr	Glu	Glu
	275					280						285			
Glu	Lys	Lys	Arg	Tyr	Lys	Ala	Asp	Arg	Asn	Pro	Leu	Glu	Ser	Leu	Leu
	290					295					300				
Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
305				310						315				320	
Cys	Ala	Thr	Ala	Asn	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe
			325						330					335	
Asn	Glu	Glu	Phe	Asp	Leu	Xaa	Arg	Gln	Gly	His	Trp	Xaa	Gly	Arg	Lys

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<210> 4139
 <211> 431
 <212> DNA
 <213> Homo sapiens

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 431

<210> 4140
 <211> 50
 <212> PRT
 <213> Homo sapiens

<400> 4140
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 Val Pro
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<210> 4141
 <211> 1182
 <212> DNA
 <213> Homo sapiens

<400> 4141
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 1080
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<210> 4142

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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		20						25				30			
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
		35				40						45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
	50				55					60					
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70				75						80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90						95	
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

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      130      135      140
Arg Gln Leu Gln Glu Gln Gln Arg Gln Lys Glu Leu Glu Arg Glu Arg
145      150      155      160
Leu Glu Arg Glu Arg Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu
      165      170      175
Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu Glu Gln Glu Gln Leu Glu
      180      185      190
Arg Glu Arg Gln Glu Arg Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu
      195      200      205
Arg Leu Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu Arg Leu Asp Arg
      210      215      220
Glu Arg Glu Arg Gln Glu Arg Glu Arg Leu Glu Arg Leu Glu Arg Glu
225      230      235      240
Arg Gln Glu Arg Glu Arg Gln Glu Gln Leu Glu Arg Glu Gln Leu Glu
      245      250      255
Trp Glu Arg Glu Arg Arg Ile Ser Ser Ala Ala Ala Pro Ala Ser Val
      260      265      270
Glu Thr Pro Leu Asn Ser Val Leu Gly Asp Ser Ser Ala Ser Glu Pro
      275      280      285
Gly Leu Gln Ala Ala Ser Gln Pro Ala Glu Thr Pro Ser Gln Gln Gly
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Ile Val Leu Gly Pro Leu Ala
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<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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<210> 4144

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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Arg	Gly	Cys	Trp	Val	Asn	Gly	Ile	Arg	Arg	Leu	Ile	Val	Ser	Arg	Arg
				20				25					30		
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
				35				40					45		
Ser	Val	Leu	Tyr	Leu	His	Arg	Ser	Leu	Ala	Asp	Leu	Gly	Arg	Leu	Trp

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Gln Arg Leu Arg Asp Ala Phe Pro Glu Asp Arg Ser Glu Leu Ala Gln
65              70              75              80
Gly Pro Leu Arg Gln Gly Leu Val Ala Ile Lys Glu Ala His Asp Ile
      85              90              95
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
      100              105              110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
      115              120              125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
      130              135              140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
145              150              155              160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
      165              170              175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
      180              185              190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
      195              200              205
Asp Pro Ala Ala Tyr Val Thr Asn Leu Ser Tyr Tyr His Leu Val Pro
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<210> 4145

<211> 400

<212> DNA

<213> Homo sapiens

<400> 4145

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<210> 4146

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4146

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 50 55 60
 Glu Tyr Ala Lys Thr Trp Ser Arg Tyr Ala Lys Glu Leu Leu Ala Trp
 65 70 75 80
 Thr Glu Lys Arg Ala Ser Tyr Glu Leu Glu Phe Ala Lys Ser Thr Met
 85 90 95
 Lys Ile Ala Glu Ala Gly Lys Val Ser Ile Gln Gln Gln Ser His Met
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<210> 4147

<211> 4892

<212> DNA

<213> Homo sapiens

<400> 4147

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<210> 4148

<211> 697

<212> PRT

<213> Homo sapiens

<400> 4148

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 35 40 45
 Glu Gln His Leu Phe Asp Val Asn Asn Ser Gly Gly Gln Ser Ser Glu
 50 55 60
 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg
 65 70 75 80
 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
 85 90 95
 Asp Lys Gly Leu Ile Asn Lys Glu Asn Thr Pro Ser Gly Phe Asn His
 100 105 110
 Leu Asp Asp Cys Ile Leu Asn Thr Gln Glu Val Glu Lys Val His Lys
 115 120 125
 Asn Thr Phe Gly Cys Ala Gly Glu Arg Ser Lys Pro Lys Arg Gln Lys
 130 135 140
 Ser Ser Thr Lys Leu Ser Glu Leu His Asp Asn Gln Asp Gly Leu Val
 145 150 155 160
 Asn Met Glu Ser Leu Asn Ser Thr Arg Ser His Glu Arg Thr Gly Pro
 165 170 175
 Asp Asp Phe Glu Trp Met Ser Asp Glu Arg Lys Gly Asn Glu Lys Asp

3335

610	615	620
Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu Lys Lys Arg Ile Arg		
625	630	635
Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe Arg Gln Asn Gly Arg		640
	645	650
Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala Glu Glu Tyr Ser Glu		655
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Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu Glu Val Leu Ile Ser		670
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<210> 4149

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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 300
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 420
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 480
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 1080

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 1200
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<210> 4150

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4150

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			20					25					30		
His	Ile	Lys	Arg	Ile	Thr	Asp	Asn	Asp	Ile	Gln	Ser	Leu	Val	Leu	Glu
		35				40					45				
Ile	Glu	Gly	Thr	Asn	Val	Ser	Thr	Thr	Tyr	Ile	Thr	Cys	Pro	Ala	Asp
	50					55					60				
Pro	Lys	Lys	Thr	Leu	Gly	Ile	Lys	Leu	Pro	Phe	Leu	Val	Met	Ile	Ile
65				70					75					80	
Lys	Asn	Leu	Lys	Lys	Tyr	Phe	Thr	Phe	Glu	Val	Gln	Val	Leu	Asp	Asp
			85					90					95		
Lys	Asn	Val	Arg	Arg	Arg	Phe	Arg	Ala	Ser	Asn	Tyr	Gln	Ser	Thr	Thr
		100						105					110		
Arg	Val	Lys	Pro	Phe	Ile	Cys	Thr	Met	Pro	Met	Arg	Leu	Asp	Asp	Gly
		115					120					125			
Trp	Asn	Gln	Ile	Gln	Phe	Asn	Leu	Leu	Asp	Phe	Thr	Arg	Arg	Ala	Tyr
	130					135					140				
Gly	Thr	Asn	Tyr	Ile	Glu	Thr	Leu	Arg	Val	Gln	Ile	His	Ala	Asn	Cys
145				150					155					160	
Arg	Ile	Arg	Arg	Val	Tyr	Phe	Ser	Asp	Arg	Leu	Tyr	Ser	Glu	Asp	Glu
			165					170					175		
Leu	Pro	Ala	Glu	Phe	Lys	Leu	Tyr	Leu	Pro	Val	Gln	Asn	Lys	Ala	Lys
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Gln

<210> 4151

<211> 1372

<212> DNA

<213> Homo sapiens

<400> 4151

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 480
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 1260
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 1372

<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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 Arg Glu Gly Glu Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly
 35 40 45
 Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
 50 55 60
 Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Leu Arg Gly Gln Val
 65 70 75 80
 Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
 85 90 95
 Pro

<210> 4153
 <211> 395
 <212> DNA
 <213> Homo sapiens

<400> 4153
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 180
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<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 4154
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 20 25 30
 Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
 35 40 45
 Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
 50 55 60
 Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
 65 70 75 80
 Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
 85 90 95
 Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
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<210> 4155

<211> 1191

<212> DNA

<213> Homo sapiens

<400> 4155

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360
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1191

<210> 4156

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4156

Asp Leu Pro Ile Ser His Leu His Gln Leu Val Pro Val Leu Leu Ile

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20	25	30	
Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
35	40	45	
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
50	55	60	
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
65	70	75	80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
85	90	95	
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
100	105	110	
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
115	120	125	
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
130	135	140	
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
145	150	155	160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
165	170	175	
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
180	185	190	
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
195	200	205	
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro			
210	215	220	
Ser Ala Ser Thr Glu Ser Arg Arg Asp			
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<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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420
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480
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540

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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

Met Pro Leu Thr Leu Leu Gln Asp Trp Cys Arg Gly Glu His Leu Asn

1

5

10

15

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Asp	Glu	Phe	Glu	Glu	Thr	Leu	Gln	Glu	Ala	Cys	Arg	His	Leu	Gly	Arg										
										35					40					45					
Tyr	Arg	Val	Ile	Gly	Arg	Met	Phe	Arg	Arg	Glu	Glu	Asn	Ala	Gln	Ala										
										50					55					60					
Ile	Leu	Leu	Glu	Leu	Ala	Gln	Asp	Ile	Asp	Tyr	Ala	Leu	Leu	Pro	Arg										
										65					70					75					
Glu	Ile	Pro	Gly	Lys	Gly	Gly	Pro	Trp	Glu	Val	Ile	Val	Lys	Pro	Arg										
										85					90					95					
Asn	Ser	Asp	Gly	Glu	Phe	Leu	Asn	Arg	Leu	Asn	Arg	Phe	Leu	Glu	Glu										
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Glu	Arg	Arg	Thr	Val	Ser	Asp	Met	Asn	Arg	Val	Leu	Gly	Ser	Asp	Thr										
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Asn	Cys	Ser	Ala	Pro	Arg	Val	Thr	Ile	Ser	Pro	Glu	Phe	Trp	Thr	Trp										
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Ala	Gln	Thr	Leu	Gly	Ala	Ala	Val	Gln	Pro	Leu	Leu	Glu	Gln	Met	Leu										
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Tyr	Arg	Glu	Leu	Arg	Val	Phe	Ser	Gly	Asn	Thr	Ile	Ser	Ile	Pro	Gly										
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Ala	Leu	Ala	Phe	Asp	Ala	Trp	Leu	Glu	His	Thr	Thr	Glu	Met	Leu	Gln										
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Met	Trp	Gln	Val	Pro	Glu	Gly	Glu	Lys	Arg	Arg	Arg	Leu	Met	Glu	Cys										
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Leu	Arg	Gly	Pro	Ala	Leu	Gln	Val	Val	Ser	Gly	Leu	Arg	Ala	Ser	Asn										
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Ala	Ser	Ile	Thr	Val	Glu	Glu	Cys	Leu	Ala	Ala	Leu	Gln	Gln	Val	Phe										
										225					230					235					
Gly	Pro	Val	Glu	Ser	His	Lys	Ile	Ala	Gln	Val	Lys	Leu	Cys	Lys	Ala										
										245					250					255					
Tyr	Gln	Glu	Ala	Gly	Glu	Lys	Val	Ser	Ser	Phe	Val	Leu	Arg	Leu	Glu										
										260					265					270					
Pro	Leu	Leu	Gln	Arg	Ala	Val	Glu	Asn	Asn	Val	Val	Ser	Arg	Arg	Asn										
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Val	Asn	Gln	Thr	Arg	Leu	Lys	Arg	Val	Leu	Ser	Gly	Ala	Thr	Leu	Pro										
										290					295					300					
Asp	Lys	Leu	Arg	Asp	Lys	Leu	Lys	Leu	Met	Lys	Gln	Arg	Arg	Lys	Pro										
										305					310					315					
Pro	Gly	Phe	Leu	Ala	Leu	Val	Lys	Leu	Leu	Arg	Glu	Glu	Glu	Glu	Trp										
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Glu	Ala	Thr	Leu	Gly	Pro	Asp	Arg	Glu	Ser	Leu	Glu	Gly	Leu	Glu	Val										
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Ala	Pro	Arg	Pro	Pro	Ala	Arg	Ile	Thr	Gly	Val	Gly	Ala	Val	Pro	Leu										
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Pro	Ala	Ser	Gly	Asn	Ser	Phe	Asp	Ala	Arg	Pro	Ser	Gln	Gly	Tyr	Arg										
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Arg	Arg	Arg	Gly	Arg	Gly	Gln	His	Arg	Arg	Gly	Gly	Val	Ala	Arg	Ala										
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Cys	Gly	Glu	Asp	Gly	His	Ile	Arg	Val	Gln	Cys	Ile	Asn	Pro	Ser	Asn										
										420					425					430					
Leu	Leu	Leu	Val	Lys	Gln	Lys	Lys	Gln	Ala	Ala	Val	Glu	Ser	Gly	Asn										
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<210> 4159

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4159

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<210> 4160

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4160

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Lys	Phe	Ser	Ile	Arg	Asn	Arg	Arg	His	His	Cys	Arg	Leu	Cys	Gly	Ser
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Ile	Met	Cys	Lys	Lys	Cys	Met	Glu	Leu	Ile	Ser	Leu	Pro	Leu	Ala	Asn
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Lys	Leu	Thr	Ser	Ala	Ser	Lys	Glu	Ser	Leu	Ser	Thr	His	Thr	Ser	Pro
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Ser	Gln	Ser	Pro	Asn	Ser	Val	His	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Ser
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Ile	Arg	Cys	Cys	Thr	His	Cys	Lys	Asp	Thr	Leu	Leu	Lys	Arg	Glu	Gln
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Glu	His	Ala	Ser	Asp	Leu	Arg	Val	Glu	Val	Gln	Lys	Val	Tyr	Glu	Leu
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Glu	Gly	Trp	Leu	Pro	Leu	Ser	Gly	Gly	Gln	Gly	Gln	Ser	Glu	Asp	Ser
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<210> 4161
<211> 3316
<212> DNA
<213> Homo sapiens

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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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			20					25					30		
Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
	35						40					45			
Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
	50					55					60				
Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
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Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
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Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
			100					105					110		
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
		115					120					125			
Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
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Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
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Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
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				245					250					255	
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Lys Leu Asp Gly Thr Gly Tyr Gly Asp Tyr Val	Lys Ile Tyr Asp Gly	
305	310	315
Leu Glu Glu Asn Pro His Lys Leu Leu Arg Val	Leu Thr Ala Phe Asp	
325	330	335
Ser His Ala Pro Leu Thr Val Val Ser Ser Ser	Gly Gln Ile Arg Val	
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His Phe Cys Ala Asp Lys Val Asn Ala Ala Arg	Gly Phe Asn Ala Thr	
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Tyr Gln Val Asp Gly Phe Cys Leu Pro Trp Glu	Ile Pro Cys Gly Gly	
370	375	380
Asn Trp Gly Cys Tyr Thr Glu Gln Gln Arg Cys	Asp Gly Tyr Trp His	
385	390	395
Cys Pro Asn Gly Arg Asp Glu Thr Asn Cys Thr	Met Cys Gln Lys Glu	
405	410	415
Glu Phe Pro Cys Ser Arg Asn Gly Val Cys Tyr	Pro Arg Ser Asp Arg	
420	425	430
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Phe Glu Ser Trp Val Cys Asp Ser Gln Asp Asp	Cys Gly Asp Gly Ser	
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Ala Val Ile Gly Ser Leu Ile Cys Gly Leu Leu	Val Ile Ala Leu	
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Gly Cys Thr Cys Lys Leu Tyr Ser Leu Arg Met	Phe Glu Arg Arg Ser	
515	520	525
Phe Glu Thr Gln Leu Ser Arg Val Glu Ala Glu	Leu Leu Arg Arg Glu	
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Ala Pro Pro Ser Tyr Gly Gln Leu Ile Ala Gln	Gly Leu Ile Pro Pro	
545	550	555
Val Glu Asp Phe Pro Val Cys Ser Pro Asn Gln	Ala Ser Val Leu Glu	
565	570	575
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Leu Pro Met Ala Gly Arg Ser Ser Asn Ile Trp	Asn Arg Ile Phe Asn	
595	600	605
Phe Ala Arg Ser Arg His Ser Gly Ser Leu Ala	Leu Val Ser Ala Asp	
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Gly Asp Glu Val Val Pro Ser Gln Ser Thr Ser	Arg Glu Pro Glu Arg	
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Asn His Thr His Arg Ser Leu Phe Ser Val Glu	Ser Asp Asp Thr Asp	
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Thr Glu Asn Glu Arg Arg Asp Met Ala Gly Ala	Ser Gly Gly Val Ala	
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Ala Pro Leu Pro Gln Lys Val Pro Pro Thr Thr	Ala Val Glu Ala Thr	
675	680	685
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690	695	700
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705	710	715
Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly		
	725	730
Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln		
	740	745
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu		
	755	760
Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser		
	770	775
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser		
785	790	795
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly		
	805	810
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val		
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<210> 4163

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<211> 187

<212> PRT

<213> Homo sapiens

<400> 4164

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 50 55 60
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65 70 75 80
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 85 90 95
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 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
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<210> 4165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4165

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<210> 4166

<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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Leu	Glu	Arg	Glu	Gly	Pro	Arg	Ala	Phe	Tyr	Arg	Gly	Tyr	Leu	Pro	Asn
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<211> 897

<212> DNA

<213> Homo sapiens

<400> 4167

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<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
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<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg		365
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Gly Arg Gly Arg Gly Arg Lys Ala Glu Glu Ala Gly Gly Thr Arg Leu		380
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Glu Pro Leu Lys Pro Leu Lys Ile Lys Leu Ser Val Pro Lys Ala Gly		400
	405	410
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Lys Glu Val Glu Glu Lys Gln Pro Glu Met Lys Ser Gly Phe Met Ala		445
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<211> 889

<212> DNA

<213> Homo sapiens

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<211> 404
<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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720
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780
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840
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900
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960
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1080
cagacactta ccacctgggt ccaccgatcc caccctatgc ttccacctcc cagagctctt
1140
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1200
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1260
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1320
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1440
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1500

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 1800
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 1860
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 1980
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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

Met	Leu	Leu	Thr	Leu	Ala	Gly	Gly	Ala	Leu	Phe	Phe	Pro	Gly	Leu	Phe
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Ala	Leu	Cys	Thr	Trp	Ala	Leu	Arg	Arg	Ser	Gln	Pro	Gly	Trp	Ser	Arg
			20					25					30		
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
		35					40					45			
Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
	50					55					60				
Val	Ile	Thr	Gly	Arg	His	Trp	Leu	Ala	Arg	Glu	Tyr	Val	Trp	Phe	Leu
65				70					75					80	
Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
			85					90					95		
Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
		100					105						110		
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
	115					120					125				
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
	130					135					140				
Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
145				150					155					160	
Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
			165				170						175		
Tyr	Lys	Val	Asn	Gly	Ile	Leu	Thr	Leu	Ala	Thr	Phe	Leu	Ser	Cys	Arg

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<210> 4181
<211> 735
<212> DNA
<213> Homo sapiens
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180
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240
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300
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360
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420
tacattggcc aggacgggat tgccagctcc atagtgatgc tgatcatctg tgggggctg
480
gtcaatggcc catacgccnt catcaccact gctgtctctg ctgacctggg gactcacaag
540
agcctgaagg gcaacgccaa agccctgtcc acggtcacgg ccatcattga cggcaccggc
600
tccatagggtg cggctctggg gcctctgctg gctgggctca tctccccac gggctggaac
660
aatgtcttct acatgctcat ctctgccgac gtcctagcct gcttgcctct ttgccggtta
720
gtatacaaag agatc
735

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<210> 4182
<211> 192
<212> PRT
<213> Homo sapiens
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<400> 4182
His Pro Ala Gly Ile Glu Phe Ser Leu Cys Leu Leu Phe Ala Lys Leu
1. 5 10 15
Val Ser Tyr Thr Phe Leu Tyr Trp Leu Pro Leu Tyr Ile Ala Asn Val

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<210> 4183
<211> 1129
<212> DNA
<213> Homo sapiens
```

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<400> 4183
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120
atatataggt ccctgttgtg atatctgttg ttgattctgt accacagaag tctgggggtg
180
ttttgtagca actgaagtgt tctgttgtaa aacaggcact tgatttgctg gaaggaatgc
240
tgtttgttct tgctgcgaca aacattgagc agcattaagt gggcggttta cgtcctgtgg
300
agtaatgggt gtttttgaag tctgtccttg atactgcaca ttaaaaggaa tatcattttc
360
tgaaacattg ctattttcca taccagatag catatcctct tgctggtcca tatccgaaga
420
ccttacacga gaaagtctta atgtaagttt agtagagtcc ttggatggag aactaattat
480
atcatacatt gccgctttct cactctgctc tttttcatcc ttgcctaatt tcattttctt
540
ctgcttcttt tgttttcttt ctggagaatc tagcaagata tctggtggaa catctcgagg
600
tgatgaacaa ggtagagact gagattgtag gattaaagggt ggtcttgagc ctttaggagt
660
tccttcactt ccagcagggg agcatactgg ctgtggagat ctcaagggaa aagatgcagc
720
attcctcatt gttgaagaat ctccatcgtc actacttagc ctgtgcacca tgtgtaggta
780

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gtcctcactt gaaccatgtc taggattatc agcatgatga ttagctgaat tgccagacaa
 840
 cggaccagaa actttattat catgtatgtt tctcaaacca cctgcaacaa tgggacttga
 900
 taccgatgct tgttgcactt gtggatgtgt tgtgtaactt gaaggatggg aatatggcat
 960
 gtatcctgca gggctttgtg gggcgatgg actaggcact gggctatttt gctgtggcat
 1020
 aaatctgttc ccagagcttg tctgtggtgg cacaaaccgg ctggaggggc tatgtgagat
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 1129

<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

Met	His	Ser	Ser	Pro	Ala	Ser	Ser	Asn	Tyr	Gln	Gln	Thr	Thr	Ile	Ser
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His	Ser	Pro	Ser	Ser	Arg	Phe	Val	Pro	Pro	Gln	Thr	Ser	Ser	Gly	Asn
			20					25					30		
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35				40					45				
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
	50				55						60				
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
65				70					75					80	
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
			85					90					95		
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
	115					120						125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
	130				135						140				
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
145				150				155						160	
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
			165					170					175		
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
	180							185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
	195					200						205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
	210					215					220				
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
225				230				235						240	
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
			245					250					255		
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
	260					265							270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

275	280	285
Ser Gln Gln Glu Gln Thr	Ala Phe Leu Pro Ala	Asn Gln Val Pro Val
290	295	300
Leu Gln Gln Asn Thr Ser	Val Ala Thr Lys Gln	Pro Gln Thr Ser Val
305	310	315
Val Gln Asn Gln Gln Gln	Ile Ser Gln Gln Gly	Pro Ile Tyr Asp Glu
325	330	335
Val Glu Leu Asp Ala Leu	Ala Glu Ile Glu Arg	Ile Glu Arg Glu Ser
340	345	350
Ala Ile Glu Arg Glu Arg	Phe Ser Lys Glu Val	Gln Asp Lys Asp Lys
355	360	365
Pro Leu Lys Lys Lys Lys		
370		

<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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120
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180
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300
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420
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1020

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catatcctgc ggaccgaggg ggccttcggg ctgtacaggg ggctggcccc caacttcctg
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 1140
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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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Gln	Glu	Ile	Met	Gln	Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu
			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50					55					60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65					70					75				80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
				85					90					95	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100					105					110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115					120					125			
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
		130					135					140			
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
145					150					155				160	
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165						170					175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
			180					185					190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
		195					200						205		
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
		210				215						220			
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225					230					235				240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

245 250 255
 Pro Asn Met Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val
 260 265 270
 Tyr Glu Thr Leu Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser
 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
 290 295 300
 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
 305 310 315 320
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
 340 345 350
 Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val Ser Ile
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 Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly Val Gln Ser
 370 375 380
 Arg
 385

<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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 840

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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Pro	Arg	Val	Leu	Ala	Asp	Ser	Phe	Pro	Asp	Ser	Ser	Pro	Tyr	Glu	Gly
		20						25					30		
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
	35						40					45			
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55				60					
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65					70					75				80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85						90					95	
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
	115						120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
	130						135					140			
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
145					150					155				160	
Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165						170					175	
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
			180					185					190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195						200					205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
	210						215					220			
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225					230					235				240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245						250					255	
Glu	Trp	Gly	Val	Leu	Leu	Phe	Trp	Leu	Asn	Leu	Gln	Gln	Gly	Pro	Ala
			260						265					270	

<210> 4189

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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<210> 4190

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4190

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<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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<211> 517

<212> PRT

<213> Homo sapiens

<400> 4192

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<212> DNA

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<211> 519

<212> PRT

<213> Homo sapiens

<400> 4194

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Ile	Pro	Glu	Asp	Leu	Ser	Thr	Thr	Ser	Gly	Gly	Gln	Gln	Ser	Ser	Lys
		35					40					45			
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	50					55				60					
Glu	Glu	Asn	Gly	Arg	Ala	Cys	Glu	Met	Asn	Gly	Glu	Glu	Cys	Ala	Glu
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Asp	Leu	Arg	Met	Leu	Asp	Ala	Ser	Gly	Glu	Lys	Met	Asn	Gly	Ser	His
			85					90					95		
Arg	Asp	Gln	Gly	Ser	Ser	Ala	Leu	Ser	Gly	Val	Gly	Gly	Ile	Arg	Leu
			100					105					110		
Pro	Asn	Gly	Lys	Leu	Lys	Cys	Asp	Ile	Cys	Gly	Ile	Ile	Cys	Ile	Gly
		115					120						125		
Pro	Asn	Val	Leu	Met	Val	His	Lys	Arg	Ser	His	Thr	Gly	Glu	Arg	Pro
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Phe	Gln	Cys	Asn	Gln	Cys	Gly	Ala	Ser	Phe	Thr	Gln	Lys	Gly	Asn	Leu
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Gly	Ser	Glu	Arg	Ser	Leu	Val	Leu	Asp	Arg	Leu	Ala	Ser	Asn	Val	Ala
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Lys	Arg	Lys	Ser	Ser	Met	Pro	Gln	Lys	Phe	Leu	Gly	Asp	Lys	Gly	Leu
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Tyr	Leu	Gly	Ala	Glu	Ser	Leu	Arg	Pro	Leu	Val	Gln	Thr	Pro	Pro	Gly
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Gly	Ser	Glu	Val	Val	Pro	Val	Ile	Ser	Pro	Met	Tyr	Gln	Leu	His	Lys

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<210> 4195

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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			20					25					30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
			35				40						45		
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
			50				55					60			
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
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Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85						90					95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
			100					105					110		
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
			115				120						125		
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
			130				135					140			
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
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			165						170					175	
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			180						185				190		
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			195				200						205		
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			210				215					220			
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<212> DNA
<213> Homo sapiens
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<211> 148
<212> PRT
<213> Homo sapiens
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Gly	Ile	Gln	Thr	Gly	Tyr	Thr	Arg	Thr	Gly	Ser	Ile	Phe	Leu	Ala	Gln
	115						120					125			
Thr	Gln	Asp	Arg	Leu	Ile	Ser	Leu	Lys	Arg	Ile	Asn	Ala	Gly	Leu	Lys
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<210> 4199

<211> 1769

<212> DNA

<213> Homo sapiens

<400> 4199

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<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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		20						25					30		
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		35					40					45			
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
	50					55					60				
Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
	65				70					75				80	
Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90					95		
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
		100						105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
		115					120					125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
	130					135					140				
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
	145				150				155					160	
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
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Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
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 <212> DNA
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<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

65					70					75				80
Thr	Val	Asp	Arg	Phe	Gly	Arg	Arg	Gly	Ile	Leu	Leu	Leu	Ser	Met Thr
				85					90				95	
Leu	Thr	Gly	Ile	Ala	Ser	Leu	Val	Leu	Gly	Leu	Trp	Asp	Tyr	Leu
		100						105				110		
Asn	Glu	Ala	Ala	Ile	Thr	Thr	Phe	Ser	Val	Leu	Gly	Leu	Phe	Ser Ser
		115					120					125		
Gln	Ala	Ala	Ala	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ala	Glu	Val	Ile Pro
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Thr	Thr	Val	Arg	Gly	Arg	Gly	Leu	Gly	Leu	Ile	Met	Ala	Leu	Gly Ala
145					150					155				160
Leu	Gly	Gly	Leu	Ser	Gly	Pro	Ala	Gln	Arg	Leu	His	Met	Gly	His Gly
				165					170					175
Ala	Phe	Leu	Gln	His	Val	Val	Leu	Ala	Ala	Cys	Ala	Leu	Leu	Cys Ile
			180					185					190	
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		195					200					205		
Val	Leu	Arg	Asp	Gly	Glu	Leu	Cys	Arg	Arg	Pro	Ser	Leu	Leu	Arg Gln
		210					215					220		
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<210> 4203

<211> 1368

<212> DNA

<213> Homo sapiens

<400> 4203

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<211> 80

<212> PRT

<213> Homo sapiens

<400> 4204

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			20					25					30		
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<211> 6523

<212> DNA

<213> Homo sapiens

<400> 4205

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<211> 829

<212> PRT

<213> Homo sapiens

<400> 4206

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<211> 1016

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4208

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1740
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1800
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1920
aacatctaca tcaagcgggc ggccgagatc tatggggtca cccacacccg cggcatctac
1980
cagaaggcca ttgagggtgt gtcggacgag cagcgcgtg agatgtgcct gcggtttgca
2040
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2100
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2160
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2220
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2280
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2340
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2400
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2460
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2520
gagcccaacg aggttcggct ggagcagcag agcgtgccag ccgcagtgtt tgggagcctg
2580

aaggaagact gaccggtccc tcccccatcc cccctcccca cccctccccc aatacagcta
 2640
 cgtttggtaca tcaaaaaaaaa a
 2661

<210> 4210

<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

Xaa	Ser	Cys	Thr	Trp	Ala	Ser	Arg	Lys	Met	Val	Val	Met	Ala	Arg	Leu
1				5				10					15		
Ser	Arg	Pro	Glu	Arg	Pro	Asp	Leu	Val	Phe	Glu	Glu	Glu	Asp	Leu	Pro
		20					25						30		
Tyr	Glu	Glu	Glu	Ile	Met	Arg	Asn	Gln	Phe	Ser	Val	Lys	Cys	Trp	Leu
	35					40						45			
Arg	Tyr	Ile	Glu	Phe	Lys	Gln	Gly	Ala	Pro	Lys	Pro	Arg	Leu	Asn	Gln
	50				55						60				
Leu	Tyr	Glu	Arg	Ala	Leu	Lys	Leu	Leu	Pro	Cys	Ser	Tyr	Lys	Leu	Trp
65				70					75				80		
Tyr	Arg	Tyr	Leu	Lys	Ala	Arg	Arg	Ala	Gln	Val	Lys	His	Arg	Cys	Val
			85					90					95		
Thr	Asp	Pro	Ala	Tyr	Glu	Asp	Val	Asn	Asn	Cys	His	Glu	Arg	Ala	Phe
		100					105						110		
Val	Phe	Met	His	Lys	Met	Pro	Arg	Leu	Trp	Leu	Asp	Tyr	Cys	Gln	Phe
	115						120					125			
Leu	Met	Asp	Gln	Gly	Arg	Val	Thr	His	Thr	Arg	Arg	Thr	Phe	Asp	Arg
	130				135						140				
Ala	Leu	Arg	Ala	Leu	Pro	Ile	Thr	Gln	His	Ser	Arg	Ile	Trp	Pro	Leu
145				150						155			160		
Tyr	Leu	Arg	Phe	Leu	Arg	Ser	His	Pro	Leu	Pro	Glu	Thr	Ala	Val	Arg
			165					170					175		
Gly	Tyr	Arg	Arg	Phe	Leu	Lys	Leu	Ser	Pro	Glu	Ser	Ala	Glu	Glu	Tyr
		180					185						190		
Ile	Glu	Tyr	Leu	Lys	Ser	Ser	Asp	Arg	Leu	Asp	Glu	Ala	Ala	Gln	Arg
	195						200					205			
Leu	Ala	Thr	Val	Val	Asn	Asp	Glu	Arg	Phe	Val	Ser	Lys	Ala	Gly	Lys
	210				215						220				
Ser	Asn	Tyr	Gln	Leu	Trp	His	Glu	Leu	Cys	Asp	Leu	Ile	Ser	Gln	Asn
225				230						235				240	
Pro	Asp	Lys	Val	Gln	Ser	Leu	Asn	Val	Asp	Ala	Ile	Ile	Arg	Gly	Gly
			245						250				255		
Leu	Thr	Arg	Phe	Thr	Asp	Gln	Leu	Gly	Lys	Leu	Trp	Cys	Ser	Leu	Ala
	260						265						270		
Asp	Tyr	Tyr	Ile	Arg	Ser	Gly	His	Phe	Glu	Lys	Ala	Arg	Asp	Val	Tyr
	275					280						285			
Glu	Glu	Ala	Ile	Arg	Thr	Val	Met	Thr	Val	Arg	Asp	Phe	Thr	Gln	Val
	290				295						300				
Phe	Asp	Ser	Tyr	Ala	Gln	Phe	Glu	Glu	Ser	Met	Ile	Ala	Ala	Lys	Met
305				310						315				320	
Glu	Thr	Ala	Ser	Glu	Leu	Gly	Arg	Glu	Glu	Glu	Asp	Asp	Val	Asp	Leu
			325					330					335		
Glu	Leu	Arg	Leu	Ala	Arg	Phe	Glu	His	Leu	Ile	Ser	Arg	Arg	Pro	Leu

340 345 350
 His Leu Ser Ser Val Leu Leu Arg Gln Asn Pro His His Val His Glu
 355 360 365
 Trp His Lys Arg Val Ala Leu His Gln Gly Arg Pro Arg Glu Ile Ile
 370 375 380
 Asn Thr Tyr Thr Glu Ala Val Gln Thr Val Asp Pro Phe Lys Ala Thr
 385 390 395 400
 Gly Lys Pro His Thr Leu Trp Val Ala Phe Ala Lys Phe Tyr Glu Asp
 405 410 415
 Asn Gly Gln Leu Asp Asp Ala Arg Val Ile Leu Glu Lys Ala Thr Lys
 420 425 430
 Val Asn Phe Lys Gln Val Asp Asp Leu Ala Ser Val Trp Cys Gln Cys
 435 440 445
 Gly Glu Leu Glu Leu Arg His Glu Asn Tyr Asp Glu Ala Leu Arg Leu
 450 455 460
 Leu Arg Lys Ala Thr Ala Leu Pro Pro Pro Gly Arg Val Phe Asp Gly
 465 470 475 480
 Ser Glu Pro Val Gln Asn Arg Val Tyr Lys Ser Leu Lys Val Trp Ser
 485 490 495
 Met Leu Ala Asp Leu Glu Glu Ser Leu Gly Thr Phe Gln Ser Thr Lys
 500 505 510
 Ala Val Tyr Asp Arg Ile Leu Asp Leu Arg Ile Ala Thr Pro Gln Ile
 515 520 525
 Val Ile Asn Tyr Ala Met Phe Leu Glu Glu His Lys Tyr Phe Glu Glu
 530 535 540
 Ser Phe Lys Ala Tyr Glu Arg Gly Ile Ser Leu Phe Lys Trp Pro Asn
 545 550 555 560
 Val Ser Asp Ile Trp Ser Thr Tyr Leu Thr Lys Phe Ile Ala Arg Tyr
 565 570 575
 Gly Gly Arg Lys Leu Glu Arg Ala Arg Asp Leu Phe Glu Gln Ala Leu
 580 585 590
 Asp Gly Cys Pro Pro Lys Tyr Ala Lys Thr Leu Tyr Leu Leu Tyr Ala
 595 600 605
 Gln Leu Glu Glu Glu Trp Gly Leu Ala Arg His Ala Met Ala Val Tyr
 610 615 620
 Glu Arg Ala Thr Arg Ala Val Glu Pro Ala Gln Gln Tyr Asp Met Phe
 625 630 635 640
 Asn Ile Tyr Ile Lys Arg Ala Ala Glu Ile Tyr Gly Val Thr His Thr
 645 650 655
 Arg Gly Ile Tyr Gln Lys Ala Ile Glu Val Leu Ser Asp Glu His Ala
 660 665 670
 Arg Glu Met Cys Leu Arg Phe Ala Asp Met Glu Cys Lys Leu Gly Glu
 675 680 685
 Ile Asp Arg Ala Arg Ala Ile Tyr Ser Phe Cys Ser Gln Ile Cys Asp
 690 695 700
 Pro Arg Thr Thr Gly Ala Phe Trp Gln Thr Trp Lys Asp Phe Glu Val
 705 710 715 720
 Arg His Gly Asn Glu Asp Thr Ile Arg Glu Met Leu Arg Ile Arg Arg
 725 730 735
 Ser Val Gln Ala Thr Tyr Asn Thr Gln Val Asn Phe Met Ala Ser Gln
 740 745 750
 Met Leu Lys Val Ser Gly Ser Ala Thr Gly Thr Val Ser Asp Leu Ala
 755 760 765
 Pro Gly Gln Ser Gly Met Asp Asp Met Lys Leu Leu Glu Gln Arg Ala

770	775	780
Glu Gln Leu Ala Ala	Glu Ala Glu Arg Asp Gln	Pro Leu Arg Ala Gln
785	790	795
Ser Lys Ile Leu Phe Val Arg	Ser Asp Ala Ser Arg	Glu Glu Leu Ala
805	810	815
Glu Leu Ala Gln Gln Val Asn Pro	Glu Glu Ile Gln Leu Gly Glu Asp	
820	825	830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu		
835	840	845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp		
850	855	860

<210> 4211

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4211

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ggggatcgct agccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
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tagttacaac agactccctg ggctactgt aggggtcaag agcagatttc cagactctca
120
agctggaaaa gagacgctcc aactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgct gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttgtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
420
gtacggaatt tgetccacaa acccccttgc tctaga
456

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<210> 4212

<211> 81

<212> PRT

<213> Homo sapiens

<400> 4212

Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg	
1 5 10 15	
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg	
20 25 30	
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala	
35 40 45	
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg	
50 55 60	
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp	
65 70 75 80	
Pro	

<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
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 120
 ttcccggacc cggcccgccc gccctggtac gctgctcgt cggccttctg ggccggggc
 180
 ctgctcacgc tgcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctggt tggcctggag ggcccgggct cggccagcag cgcaggcggt
 300
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 360
 acagtagaca gcacggagct cgg
 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
 Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly
 1 5 10 15
 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
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 ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgatacccct
 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atgggtgactg ttttaatccg ggcctgcgtg
 240
 agcatgctgg gagtcctgt ggaccagat actttgcatg ccaccctttg tttctgtttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctcccctggt cacccttctc
 420
 ttaagacaca tcattgagga cccctgtacc ctctgcata ccatggaaaa ggttggtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat ccttcgtgtc ctggggccag ccgcatgccg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcctgcgcc ttcttgcccc tcgagggtca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccaccctttt gaagccctca cctctgctg tcatecctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgatc ctaaacctgg gggtatgacc caagaggttg gccagctcct gcaagacatg
 900
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 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1				5					10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
	50					55					60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70					75				80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85						90					95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130					135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

```

145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

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<210> 4217
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 4217
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 catacacaca cacacccctc agtcataggc tcacaagagt ctctcttgtc tctctctcat
 120
 acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct cttgtccct
 180
 gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
 240
 tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg ccacaaagg
 300
 tctctctctt tgtccctggc tcctctctct cgcacactcc cacacacaca catacagctc
 360
 agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
 420
 cacacacgcc tgtgcagctc cacaggggccc tggggcagga gacagatctg aatacacata
 480
 ccaccctgtg ctgtgagtgg ccaactccat ccaacaactg agactttctg ttactggggc
 540
 aagggtttct gccaaactca ctcccttat aatgaatgaa ttatccctca gaaggttcca
 600
 cagtctctcc ctggcgcg
 619

<210> 4218
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 4218
 Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

```

      1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100           105           110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115           120           125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130           135           140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145           150           155

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<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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ngcggccgcg cacctgctcc cgtcgcccta cagcaagatc acgccccgcg ggaggcccca
60

```

```

ccgctgcagc agcggccaag gcagcgacaa cagcagcgtg ctgagcgggg agtccccgcc
120

```

```

ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggct acgagagcgt
180

```

```

gatgcgggac agcagaggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa
240

```

```

cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300

```

```

aggttctcag agacggaggc ttatcccagc actatccctg gacacctett ccctgtgag
360

```

```

aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gacgagcccg
420

```

```

aggggccttg gggaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgccctg
480

```

```

cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540

```

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ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag
600

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gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660

```

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gacttgagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720

```

```

acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

```

<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220
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 Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20 25 30
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35 40 45
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50 55 60
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65 70 75 80
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85 90 95
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100 105 110
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115 120 125
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130 135 140
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145 150 155 160
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165 170 175
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180 185 190
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195 200 205
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210 215 220
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225 230 235 240
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245 250 255
 Met Leu

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221
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 120
 gaagcttcaa actgtataaa tttaaagtga tttgcatatt ataaaaataa agataaacat
 180
 atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
 240

ttaacagaac tgaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgaggtt caggttgtaa aacatttgct
 420
 ccatgttctc gtccatgctt cccccacca cccctcccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtagtgct
 540
 agagggctctg ccaggtgcaa aagatggctc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt ctcccttaa
 660
 aaattgggtgc tctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
 agcactatct ttccactta atttccaag aaagtatgaa gatacttga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35				40						45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
	50					55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65				70					75					80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90						95	
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
		100					105						110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
	115					120						125			

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

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 gaggccgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccattctggct
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 300
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 aaccatgata agaattcttt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
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<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

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			20					25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50					55				60					
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70				75						80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90						95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120						125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135						140			
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

165 170 175
 Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
 180 185 190
 Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
 195 200 205
 Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
 210 215 220
 Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
 225 230 235 240
 Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
 245 250 255
 Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
 260 265 270
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 275 280

<210> 4225
 <211> 470
 <212> DNA
 <213> Homo sapiens

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 240
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 300
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 360
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<210> 4226
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4226
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 Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
 35 40 45
 Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
 50 55 60
 Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile


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<210> 4227
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<212> DNA
<213> Homo sapiens
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120
cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt
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300
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360
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420
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480
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660
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720
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780
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840
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960
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1020
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1080

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<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

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			20					25						30	
Leu	Ala	Thr	Leu	Glu	Lys	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Leu	Ser	Asn
			35				40					45			
Ile	Phe	His	Lys	Glu	Lys	Asn	Glu	Ser	Ala	Ile	Val	Ser	Ala	Ile	Gln
			50			55					60				
Ile	Leu	Leu	Thr	Leu	Leu	Glu	Thr	Arg	Arg	Pro	Thr	Phe	Glu	Gly	His
65					70					75				80	
Ile	Glu	Ile	Cys	Pro	Pro	Gly	Met	Ser	His	Ser	Ala	Cys	Ser	Val	Asn
				85					90					95	
Lys	Ser	Val	Leu	Glu	Ala	Ile	Arg	Gly	Arg	Leu	Gly	Ser	Phe	His	Glu
			100					105					110		
Leu	Leu	Leu	Glu	Pro	Pro	Lys	Lys	Ser	Val	Met	Lys	Thr	Thr	Trp	Gly
			115				120					125			
Val	Leu	Asp	Pro	Pro	Val	Gly	Asn	Thr	Arg	Leu	Asn	Val	Ile	Arg	Leu
			130				135					140			
Ile	Ser	Ser	Leu	Leu	Gln	Thr	Asn	Thr	Ser	Ser	Ile	Asn	Gly	Asp	Leu
145					150					155				160	
Met	Glu	Leu	Asn	Ser	Ile	Gly	Val	Ile	Leu	Asn	Met	Phe	Phe	Lys	Tyr
				165					170					175	
Thr	Trp	Asn	Asn	Phe	Leu	His	Thr	Gln	Val	Glu	Ile	Cys	Ile	Ala	Leu
			180					185					190		
Ile	Leu	Ala	Ser	Pro	Phe	Glu	Asn	Thr	Glu	Asn	Ala	Thr	Ile	Thr	Asp
			195				200					205			
Gln	Asp	Ser	Thr	Gly	Asp	Asn	Leu	Leu	Leu	Lys	His	Leu	Phe	Gln	Lys
			210				215				220				
Cys	Gln	Leu	Ile	Glu	Arg	Ile	Leu	Glu	Ala	Trp	Glu	Met	Asn	Glu	Lys
225					230					235				240	
Lys	Gln	Ala	Glu	Gly	Gly	Arg	Arg	His	Gly	Tyr	Met	Gly	His	Leu	Thr
				245					250					255	
Arg	Ile	Ala	Asn	Cys	Ile	Val	His	Ser	Thr	Asp	Lys	Gly	Pro	Asn	Ser
			260					265					270		
Ala	Leu	Val	Gln	Gln	Leu	Ile	Lys	Gly	Lys	Leu	Phe	Val	Lys	Phe	Glu
			275				280					285			
Leu	His	Phe	Cys	Trp	Val	Ala	Gly	Arg	Ile						
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<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 4229

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<210> 4230

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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			20					25					30		
Leu	Arg	Pro	Asp	Thr	Asp	Phe	Gly	Gly	Asn	Met	Lys	Ser	Val	Leu	Thr
		35					40					45			
Trp	Lys	His	Arg	Lys	Glu	His	Ala	Ile	Pro	His	Val	Val	Leu	Gly	Arg
	50					55					60				
Asn	Leu	Pro	Gly	Gly	Ala	Trp	His	Ser	Ile	Glu	Gly	Ser	Met	Val	Ile
65					70					75				80	
Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp
				85					90					95	
Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala
			100					105					110		
Gly	Asp	Ile	Ala	His	Tyr	Tyr	Arg	Asp	Tyr	Val	Val	Lys	Lys	Gly	Leu
	115						120					125			
Gly	His	Asn	Phe	Val	Ser	Gly	Ala	Val	Val	Thr	Ala	Val	Glu	Trp	Gly
	130					135					140				
Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe
145					150					155				160	
Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser
				165					170					175	
Leu	Trp	Ala	Arg	Asn	Val	Val	Leu	Ala	Thr	Gly	Thr	Phe	Asp	Ser	Pro
		180						185					190		
Ala	Arg	Leu	Gly	Ile	Pro	Gly	Glu	Ala	Leu	Pro	Phe	Ile	His	His	Glu
	195						200					205			
Leu	Ser	Ala	Leu	Glu	Ala	Ala	Thr	Arg	Val	Gly	Ala	Val	Thr	Pro	Ala
	210					215					220				
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225					230					235				240	
Val	Leu	Tyr	Ala	Arg	His	Tyr	Asn	Ile	Pro	Val	Ile	His	Ala	Phe	Arg
				245					250					255	
Arg	Ala	Val	Asp	Asp	Pro	Gly	Leu	Val	Phe	Asn	Gln	Leu	Pro	Lys	Met
		260						265					270		
Leu	Tyr	Pro	Glu	Tyr	His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser
	275						280					285			
Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His
	290					295					300				
Gln	Leu	Leu	Cys	Phe	Lys	Glu	Asp	Cys	Gln	Ala	Val	Phe	Gln	Asp	Leu
305					310					315				320	
Glu	Gly	Val	Glu	Lys	Val	Phe	Gly	Val	Ser	Leu	Val	Leu	Val	Leu	Ile
				325					330					335	
Gly	Ser	His	Pro	Asp	Leu	Ser	Phe	Leu	Pro	Gly	Ala	Gly	Ala	Asp	Phe
		340						345					350		
Ala	Val	Asp	Pro	Asp	Gln	Pro	Leu	Ser	Ala	Lys	Arg	Asn	Pro	Ile	Asp

	355		360		365										
Val	Asp	Pro	Phe	Thr	Tyr	Gln	Ser	Thr	Arg	Gln	Glu	Gly	Leu	Tyr	Ala
	370					375				380					
Met	Gly	Pro	Leu	Ala	Gly	Asp	Asn	Phe	Val	Arg	Phe	Val	Gln	Gly	Gly
385					390					395				400	
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<210> 4231

<211> 1588

<212> DNA

<213> Homo sapiens

<400> 4231

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1140

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<210> 4232

<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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Cys	Gln	Lys	Gln	Ile	Lys	Glu	Leu	Arg	Asp	Gln	Ile	Val	Ser	Val	Gln
		20					25					30			
Glu	Glu	Lys	Lys	Ile	Leu	Ala	Ile	Glu	Leu	Glu	Asn	Leu	Lys	Ser	Lys
	35					40					45				
Leu	Val	Glu	Val	Ile	Glu	Glu	Val	Asn	Lys	Val	Lys	Gln	Glu	Lys	Thr
	50				55					60					
Val	Leu	Asn	Ser	Glu	Val	Leu	Glu	Gln	Arg	Lys	Val	Leu	Glu	Lys	Cys
65				70					75					80	
Asn	Arg	Val	Ser	Met	Leu	Ala	Val	Glu	Glu	Tyr	Glu	Glu	Met	Gln	Val
			85					90						95	
Asn	Leu	Glu	Leu	Glu	Lys	Asp	Leu	Arg	Lys	Lys	Ala	Glu	Ser	Phe	Ala
	100						105					110			
Gln	Glu	Met	Phe	Leu	Glu	Pro	Asn	Gln	Gly	Lys	Lys	Thr	Lys	Pro	Pro
	115					120						125			
Phe	Gly	Arg	Gln	Ser	Ser	Ile	Leu	Asp	Gln	Gln	Leu	Ala	Leu	Asp	Glu
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Asn	Ala	Lys	Leu	Thr	Gln	Gln	Leu	Glu	Glu	Glu	Arg	Ile	Gln	His	Gln
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Gln	Lys	Val	Lys	Glu	Leu	Glu	Glu	Gln	Leu	Glu	Asn	Glu	Thr	Leu	His
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Lys	Glu	Ile	His	Asn	Leu	Lys	Gln	Gln	Leu	Glu	Leu	Leu	Glu	Glu	Asp
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Lys	Lys	Glu	Leu	Glu	Leu	Lys	Tyr	Gln	Asn	Ser	Glu	Glu	Lys	Ala	Arg
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Asn	Leu	Lys	His	Ser	Val	Asp	Glu	Leu	Gln	Lys	Arg	Val	Asn	Gln	Ser
	210					215					220				
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Pro	Pro	Pro	Asn	Pro	Ile	Arg	Ser	Leu	Met	Ser	Met	Ile	Arg	Lys	Arg

				245						250					255				
Ser	His	Pro	Ser	Gly	Ser	Gly	Ala	Lys	Lys	Glu	Lys	Ala	Thr	Gln	Pro				
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Glu	Thr	Thr	Glu	Glu	Val	Thr	Asp	Leu	Lys	Arg	Gln	Ala	Val	Glu	Glu				
		275					280				285								
Met	Met	Asp	Arg	Ile	Lys	Lys	Gly	Val	His	Leu	Arg	Pro	Val	Asn	Gln				
	290					295				300									
Thr	Ala	Arg	Pro	Lys	Thr	Lys	Pro	Glu	Ser	Ser	Lys	Gly	Cys	Glu	Ser				
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Ala	Val	Asp	Glu	Leu	Lys	Gly	Ile	Leu	Gly	Thr	Leu	Asn	Lys	Ser	Thr				
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Leu	Glu	Arg	Ile	Leu	Arg	Arg	Arg	Lys	Val	Thr	Ala	Glu	Ala	Asp	Ser				
	355					360				365									
Ser	Ser	Pro	Thr	Gly	Ile	Leu	Ala	Thr	Ser	Glu	Ser	Lys	Ser	Met	Pro				
	370				375					380									
Val	Leu	Gly	Ser	Val	Ser	Ser	Val	Thr	Lys	Thr	Ala	Leu	Asn	Lys	Lys				
385				390						395				400					
Thr	Leu	Glu	Ala	Glu	Phe	Asn	Ser	Pro	Ser	Pro	Pro	Thr	Pro	Glu	Pro				
			405					410				415							
Gly	Glu	Gly	Pro	Arg	Lys	Leu	Glu	Gly	Cys	Thr	Ser	Ser	Lys	Val	Thr				
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Phe	Gln																		

<210> 4233

<211> 2827

<212> DNA

<213> Homo sapiens

<400> 4233

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120

cctatgtact ctctggatcg aatatttgct ggatttcgaa cacgaagtca gatgtgttg
180

ggtcacatag aagaacaaga taaggctctc cactgccaat tttctgataa cagtgtgat
240

gaagaatcag aaggccaaga gaaatctgga actagatgta gaagtcgttc atggattcag
300

aagccagact ctgtttgttc ccttgttgaa ttgagtata ctcaggatga aacacaaaag
360

tcagatttgg agaatagaaga tttaaagatt gattgtctcc aggagagtca agaattgaat
420

ttgcaaaaat taaagaattc agaacgcata cttactgaag ccaaacaaaa aatgagagaa
480

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540

gatgccaaagt ctgtaagcaa gcagtatact ttgaaagtaa caaagctaga gcatgatgca
600

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660

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2280

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 2827

<210> 4234

<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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			20					25					30		
Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
		35					40					45			
Phe	Ala	Gly	Phe	Arg	Thr	Arg	Ser	Gln	Met	Leu	Leu	Gly	His	Ile	Glu
	50					55				60					
Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
65				70					75					80	
Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85					90					95		
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
			100					105				110			
Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
		115					120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
		130				135				140					
Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
145				150					155					160	
Leu	Thr	Val	Asn	Ile	Lys	Met	Lys	Glu	Asp	Leu	Ile	Lys	Glu	Leu	Ile
			165					170					175		
Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
		180					185					190			
Val	Thr	Lys	Leu	Glu	His	Asp	Ala	Glu	Gln	Ala	Lys	Val	Glu	Leu	Thr
		195				200						205			
Glu	Thr	Gln	Lys	Gln	Leu	Gln	Glu	Leu	Glu	Asn	Lys	Asp	Leu	Ser	Asp

210	215	220
Val Ala Met Lys Val Lys Leu Gln Lys Glu Phe Arg Lys Lys Val Asp		
225	230	235
Ala Ala Lys Leu Arg Val Gln Val Leu Gln Lys Lys Gln Gln Asp Ser		240
	245	250
Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Glu Lys Arg Ala Asn Glu		255
	260	265
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln		270
	275	280
Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val		285
	290	295
Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly		300
305	310	315
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		320
	325	330
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys		335
	340	345
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu		350
	355	360
Asn Gln Arg Gln Glu Leu Glu Glu Leu Glu Ala Asp Leu Lys Lys Arg		365
	370	375
Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His		380
385	390	395
Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser		400
	405	410
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu		415
	420	425
Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile		430
	435	440
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys		445
	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		460
465	470	475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala		480
	485	490
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln		495
	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		525
	530	535
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg		540
545	550	555
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		560
	565	570
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		575
	580	585
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		590
	595	600
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile		605
	610	615
Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys		620
625	630	635
Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu		640

645 650 655
 Lys Glu Leu Val Gly Glu Ala Ile Arg Arg Gln Leu Ala Ser Ser Glu
 660 665 670
 Tyr Gln Glu Ala Gly Asp Gly Val Leu Lys Pro Glu Gly Gly Gly Met
 675 680 685
 Leu Ser Glu Glu Leu Lys Trp Ala Ser Arg Pro Glu Ser Met Lys Leu
 690 695 700
 Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr
 705 710 715 720
 Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro
 725 730 735
 Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu
 740 745 750
 Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg
 755 760 765
 Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly
 770 775 780
 Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala
 785 790 795 800
 Leu Glu Leu Ser Leu Arg Arg Ser Ser Leu Gly Val Gly Ile Gly Ser
 805 810 815
 Met Ala Ala Asp Ser Ile Glu Val Ser Arg Lys Pro Arg Asp Leu Lys
 820 825 830
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<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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 120
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 180
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 240
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 300
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 360
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 420
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 480
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 660

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 840
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<210> 4236

<211> 198

<212> PRT

<213> Homo sapiens

<400> 4236

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Phe	Thr	Ser	Ile	Ser	Asn	Ser	Leu	Thr	Ser	Thr	Ala	Ala	Ile	Gly	Leu
			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr	
	35					40				45					
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
	50					55				60					
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
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Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
				85				90						95	
Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
		100						105					110		
Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
	115						120					125			
Met	Ile	Arg	Ile	Leu	His	Gly	Glu	Val	Asn	Lys	Val	Lys	Leu	Asp	Gln
	130					135					140				
Lys	Arg	Leu	Glu	Gln	Glu	Leu	Asp	Phe	Ile	Leu	Ser	Gln	Gln	Gln	Glu
145					150					155				160	
Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165					170					175		
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
		180						185					190		
Thr	Arg	Ser	Ala	Glu	Phe										
					195										

<210> 4237

<211> 560

<212> DNA

<213> Homo sapiens

<400> 4237

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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

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Arg	His	Ser	Trp	Pro	Ser	Ser	Ser	Pro	Ser	Pro	His	Arg	Phe	Ser	Phe
			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
			35				40					45			
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
			50			55				60					
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65					70					75				80	
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
			85					90						95	
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
			100					105					110		
Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Glu				
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<210> 4239

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 4239

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 180

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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

Met Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys

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 Arg Arg Ser Ser Ala Ser Ile Ser Arg Gln Ser His Leu Glu Pro Asp
 35 40 45
 Thr Phe Glu Ala Thr Gln Asp Met Val Thr Val Pro Lys Ser Pro
 50 55 60
 Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met
 65 70 75 80
 Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln
 85 90 95
 Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro
 100 105 110
 Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr
 115 120 125
 Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val
 130 135 140
 Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu
 145 150 155 160
 Glu Glu Arg Pro Pro Arg Asp Val His Ser Glu Arg Ala Ala Gly Glu
 165 170 175
 Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile
 180 185 190
 Leu Asp Ser Ser Pro Glu Lys Leu His Lys Glu Leu Glu Glu Leu
 195 200 205
 Lys Leu Ser Ser Thr Asp Leu Arg Ser His Ala Trp Tyr His Gly Arg
 210 215 220
 Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe
 225 230 235 240
 Leu Ile Arg Asp Ser Leu Thr Ser Leu Gly Asp Tyr Val Leu Thr Cys
 245 250 255
 Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val
 260 265 270
 Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu
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 Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg
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 Lys Ala Val Ser Glu Gln Ser Gly Ala Ile Ile Tyr Cys Pro Val Asn
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 325 330 335
 Gly Ser Ser Lys Pro Ala Ser Pro Val Ser Pro Ser Gly Pro Lys Gly
 340 345 350
 Ser His Met Lys Arg Arg Ser Val Thr Met Thr Asp Gly Leu Thr Ala
 355 360 365
 Asp Lys Val Thr Arg Ser Asp Gly Cys Pro Thr Ser Thr Ser Leu Pro
 370 375 380
 Arg Pro Arg Asp Ser Ile Arg Ser Cys Ala Leu Ser Met Asp Gln Ile
 385 390 395 400
 Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser
 405 410 415
 Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro
 420 425 430
 Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Cys Ser Ser Glu

435	440	445
Pro Gln Leu Cys	Pro Gly Ser Ala	Pro Lys Thr His Gly Glu Ser Asp
450	455	460
Lys Gly Pro His Thr Ser	Pro Ser His Thr Leu Gly Lys Ala Ser Pro	
465	470	475
Ser Pro Ser Leu Ser Ser Tyr Ser Asp	Pro Asp Ser Gly His Tyr Cys	480
485	490	495
Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu		
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Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu		
515	520	525
Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val		
530	535	540
Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser		
545	550	555
Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg		
565	570	575
Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg		
580	585	590
His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr		
595	600	605
Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu		
610	615	620
Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe		
625	630	635
His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly		
645	650	655
Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala		
660	665	670
Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val		
675	680	685
Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp		
690	695	700
Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys		
705	710	715
Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro		
725	730	735
Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu		
740	745	750
Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser		
755	760	765
Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg		
770	775	780
Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys		
785	790	795
Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr		
805	810	815
Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser		
820	825	830
Gln Ala Arg Arg Tyr Glu Lys Phe Asp Lys Val Leu Thr Ala Leu Ser		
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His Lys Leu Glu Pro Ala Val Arg Ser Ser Glu Leu		
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<210> 4241
<211> 479
<212> DNA
<213> Homo sapiens

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<210> 4242
<211> 159
<212> PRT
<213> Homo sapiens

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Cys Trp Lys Val Ser Pro His Ile Lys Met Asp Leu Leu Gln Trp Ile
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Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu
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Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Glu Phe Ile Gln
65 70 75 80
Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser
85 90 95
Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
100 105 110
Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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<210> 4243
<211> 3159
<212> DNA
<213> Homo sapiens

<400> 4243

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300
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<210> 4244
 <211> 849
 <212> PRT
 <213> Homo sapiens

<400> 4244

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Ala Glu Phe Glu Arg Thr Tyr Val Asp Glu Val Asn Ser Glu Leu Val
          35           40           45
Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
          50           55           60
Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
65           70           75           80
Leu Phe Val Val Arg Gln Lys Glu Ala Val Val Ser Phe Gln Val Pro
          85           90           95
Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
          100          105          110
Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
          115          120          125
Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
          130          135          140
Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
145           150           155           160
Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
          165           170           175
Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
          180          185          190
Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
          195          200          205
Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
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Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
225           230           235           240
Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
          245          250          255
Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
          260          265          270
Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
          275          280          285
Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
          290          295          300
Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
305           310           315           320
Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
          325          330          335
Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
          340          345          350
Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
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Val Ser Gly Ser Thr Asp Gly Leu Val Asp Ser Ala Gly Thr Gly Asp
  
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370 375 380
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 405 410 415
 Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu
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 Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile
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 Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys
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 Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr
 465 470 475 480
 Ile Ala Val Phe Tyr Ala Leu Pro Val Val Gln Leu Val Ile Thr Tyr
 485 490 495
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 Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile
 530 535 540
 Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp
 545 550 555 560
 Leu Cys Ala Leu Glu Cys Gly Ile Pro Lys His Phe Gly Leu Phe Tyr
 565 570 575
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 580 585 590
 His Val Cys Pro Asn Tyr Thr Asn Phe Gln Phe Asp Thr Ser Phe Met
 595 600 605
 Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His
 610 615 620
 Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile
 625 630 635 640
 Val Ile Phe Phe Ser Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr
 645 650 655
 Ala Phe Trp Ile Val Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu
 660 665 670
 Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly
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 Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln
 690 695 700
 Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly
 705 710 715 720
 Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro
 725 730 735
 Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu
 740 745 750
 Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg
 755 760 765
 Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp
 770 775 780
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<210> 4247
<211> 5755
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300

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<210> 4248

<211> 1297

<212> PRT

<213> Homo sapiens

<400> 4248

His	Pro	Leu	Asp	Lys	Arg	Thr	Gly	Glu	Arg	Glu	Leu	Gly	Gly	Lys	Ser
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Gly	Glu	Asp	Arg	Arg	Gly	Ala	Pro	Ala	Gly	Ala	Thr	Ser	Phe	Pro	Ala
		20						25					30		
Ala	Pro	Ser	Pro	Leu	Pro	Leu	His	Thr	His	Ala	Arg	Ser	Leu	Ala	Gly
		35					40					45			
Ala	Arg	Thr	Pro	Pro	Ala	Pro	Asp	Pro	His	Leu	Gly	Gly	Arg	His	Thr
		50				55					60				
Leu	Gly	Ser	Pro	Ser	Arg	Gly	Ser	Arg	Ser	Gly	Met	Glu	Ala	Ala	Arg
65					70					75				80	
Thr	Glu	Arg	Pro	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Leu	Val	Arg	Thr	Gly
				85					90					95	
Leu	Leu	Leu	Leu	Ser	Thr	Trp	Val	Leu	Ala	Gly	Ala	Glu	Ile	Thr	Trp
			100					105					110		
Asp	Ala	Thr	Gly	Gly	Pro	Gly	Arg	Pro	Ala	Ala	Pro	Ala	Ser	Arg	Pro
		115					120					125			
Pro	Ala	Leu	Ser	Pro	Leu	Ser	Pro	Arg	Ala	Val	Ala	Ser	Gln	Trp	Pro
		130					135					140			
Glu	Glu	Leu	Ala	Ser	Ala	Arg	Arg	Ala	Ala	Val	Leu	Gly	Arg	Arg	Ala
145					150					155				160	
Gly	Pro	Glu	Leu	Leu	Pro	Gln	Gln	Gly	Gly	Arg	Gly	Gly	Glu	Met	
				165					170					175	
Gln	Val	Glu	Ala	Gly	Gly	Thr	Ser	Pro	Ala	Gly	Glu	Arg	Arg	Gly	Arg
			180					185					190		
Gly	Ile	Pro	Ala	Pro	Ala	Lys	Leu	Gly	Gly	Ala	Arg	Arg	Ser	Arg	Arg
		195					200						205		
Ala	Gln	Pro	Pro	Ile	Thr	Gln	Glu	Arg	Gly	Asp	Ala	Trp	Ala	Thr	Ala

210	215	220
Pro Ala Asp Gly Ser Arg Gly Ser Arg Pro Leu Ala Lys Gly Ser Arg		
225	230	235
Glu Glu Val Lys Ala Pro Arg Ala Gly Gly Ser Ala Ala Glu Asp Leu		240
	245	250
Arg Leu Pro Ser Thr Ser Phe Ala Leu Thr Gly Asp Ser Ala His Asn		255
	260	265
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile		270
	275	280
Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser		285
	290	295
Leu Trp Arg Ser Thr Asp Tyr Gly Thr Thr Tyr Glu Lys Leu Asn Asp		300
305	310	315
Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr		320
	325	330
Asn Lys Arg Lys Ile Met Leu Leu Ser Asp Pro Glu Met Glu Ser Ser		335
	340	345
Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu		350
	355	360
Thr Phe Tyr Ile Gln Ser Leu Leu Phe His Pro Lys Gln Glu Asp Trp		365
	370	375
Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe		380
385	390	395
Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe		400
	405	410
Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met		415
	420	425
Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile		430
	435	440
Gln Glu Cys Ala Glu Thr Thr Arg Ser Gly Pro Phe Ala Arg Ser Ile		445
	450	455
Asp Ile Ser Ser Leu Val Val Gln Asp Glu Tyr Ile Phe Ile Gln Val		460
465	470	475
Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala		480
	485	490
Phe Ala Gln Ile Lys Leu Pro Lys Tyr Ser Leu Pro Lys Asp Met His		495
	500	505
Ile Ile Ser Thr Asp Glu Asn Gln Val Phe Ala Ala Val Gln Glu Trp		510
	515	520
Asn Gln Asn Asp Thr Tyr Asn Leu Tyr Ile Ser Asp Thr Arg Gly Ile		525
	530	535
Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met		540
545	550	555
Gly Asn Ile Ile Ile Glu Leu Tyr Glu Val Ala Gly Ile Lys Gly Ile		560
	565	570
Phe Leu Ala Asn Lys Lys Val Asp Asp Gln Val Lys Thr Tyr Ile Thr		575
	580	585
Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp		590
	595	600
Leu Arg Gly Ser Pro Val His Cys Leu Leu Pro Phe Cys Ser Leu His		605
	610	615
Leu His Leu Gln Leu Ser Glu Asn Pro Tyr Ser Ser Gly Arg Ile Ser		620
625	630	635
Ser Lys Glu Thr Ala Pro Gly Leu Val Val Ala Thr Gly Asn Ile Gly		640

645 650 655
 Pro Glu Leu Ser Tyr Thr Asp Ile Gly Val Phe Ile Ser Ser Asp Gly
 660 665 670
 Gly Asn Thr Trp Arg Gln Ile Phe Asp Glu Glu Tyr Asn Val Trp Phe
 675 680 685
 Leu Asp Trp Gly Gly Ala Leu Val Ala Met Lys His Thr Pro Leu Pro
 690 695 700
 Val Arg His Leu Trp Val Ser Phe Asp Glu Gly His Ser Trp Asp Lys
 705 710 715 720
 Tyr Gly Phe Thr Ser Val Pro Leu Phe Val Asp Gly Ala Leu Val Glu
 725 730 735
 Ala Gly Met Glu Thr His Ile Met Thr Val Phe Gly His Phe Ser Leu
 740 745 750
 Arg Ser Glu Trp Gln Leu Val Lys Val Asp Tyr Lys Ser Ile Phe Ser
 755 760 765
 Arg His Cys Thr Lys Glu Asp Tyr Gln Thr Trp His Leu Leu Asn Gln
 770 775 780
 Gly Glu Pro Cys Val Met Gly Glu Arg Lys Ile Phe Lys Lys Arg Lys
 785 790 795 800
 Pro Gly Ala Gln Cys Ala Leu Gly Arg Asp His Ser Gly Ser Val Val
 805 810 815
 Ser Glu Pro Cys Val Cys Ala Asn Trp Asp Phe Glu Cys Asp Tyr Gly
 820 825 830
 Tyr Glu Arg His Gly Glu Ser Gln Cys Val Pro Ala Phe Trp Tyr Asn
 835 840 845
 Pro Ala Ser Pro Ser Lys Asp Cys Ser Leu Gly Gln Ser Tyr Leu Asn
 850 855 860
 Ser Thr Gly Tyr Arg Arg Ile Val Ser Asn Asn Cys Thr Asp Gly Leu
 865 870 875 880
 Arg Glu Lys Tyr Thr Ala Lys Ala Gln Met Cys Pro Gly Lys Ala Pro
 885 890 895
 Arg Gly Leu His Val Val Thr Thr Asp Gly Arg Leu Val Ala Glu Gln
 900 905 910
 Gly His Asn Ala Thr Phe Ile Ile Leu Met Glu Glu Gly Asp Leu Gln
 915 920 925
 Arg Thr Asn Ile Gln Leu Asp Phe Gly Asp Gly Ile Ala Val Ser Tyr
 930 935 940
 Ala Asn Phe Ser Pro Ile Glu Asp Gly Ile Lys His Val Tyr Lys Ser
 945 950 955 960
 Ala Gly ile Phe Gln Val Thr Ala Tyr Ala Glu Asn Asn Leu Gly Ser
 965 970 975
 Asp Thr Ala Val Leu Phe Leu His Val Val Cys Pro Val Glu His Val
 980 985 990
 His Leu Arg Val Pro Phe Val Ala Ile Arg Asn Lys Glu Val Asn Ile
 995 1000 1005
 Ser Ala Val Val Trp Pro Ser Gln Leu Gly Thr Leu Thr Tyr Phe Trp
 1010 1015 1020
 Trp Phe Gly Asn Ser Thr Lys Pro Leu Ile Thr Leu Asp Ser Ser Ile
 1025 1030 1035 1040
 Ser Phe Thr Phe Leu Ala Glu Gly Thr Asp Thr Ile Thr Val Gln Val
 1045 1050 1055
 Ala Ala Gly Asn Ala Leu Ile Gln Asp Thr Lys Glu Ile Ala Val His
 1060 1065 1070
 Glu Tyr Phe Gln Ser Gln Leu Leu Ser Phe Ser Pro Asn Leu Asp Tyr

1075 1080 1085
 His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile
 1090 1095 1100
 Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu
 1105 1110 1115 1120
 Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu
 1125 1130 1135
 Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu
 1140 1145 1150
 Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val
 1155 1160 1165
 Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln
 1170 1175 1180
 Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser
 1185 1190 1195 1200
 Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe
 1205 1210 1215
 Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala
 1220 1225 1230
 Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln
 1235 1240 1245
 Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
 1250 1255 1260
 Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
 1265 1270 1275 1280
 Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser
 1285 1290 1295
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<210> 4249

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4249

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 120
 cccagcacgc aacatggtaa aattcgcaat gcctcaggca tcaacccgag agtaccaggc
 180
 ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaaccg
 240
 accctgatat cagaaccagc agacatgggc actcagcagt tcttacaact gaatcccaat
 300
 ctgcaaaagt ttagtagaga catggaagac gtaaagggga cccaagcaa gcctctagag
 360
 aattataaca tgttggctgg gcttgggtggc tcacgcgtgt catgcagca ctttgggagg
 420
 ctgaggcagg aggatcgctt gagcccagga gttcaagacc agcctggacc acatagttag
 480
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 540

ggatgagatt aac
553

<210> 4250

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4250

Xaa	Arg	Ala	Leu	Pro	Lys	Lys	Asp	Gln	Val	Val	Gln	Lys	Ser	Glu	Gln
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Leu	Lys	Leu	Phe	Leu	Arg	Asn	Ser	Thr	Ala	Ser	Arg	Thr	Lys	Ile	Lys
		20						25					30		
Met	Ile	Tyr	Lys	Asn	Ala	Lys	Thr	Pro	Ser	Thr	Gln	His	Gly	Lys	Ile
		35					40					45			
Arg	Asn	Ala	Ser	Gly	Ile	Asn	Pro	Arg	Val	Pro	Gly	Pro	Gln	Glu	Gly
	50				55					60					
Ser	Ile	Ile	Gly	Pro	Gln	Thr	Arg	Arg	Lys	Ser	Ser	Leu	Leu	Lys	Pro
65				70						75				80	
Thr	Leu	Ile	Ser	Glu	Pro	Ala	Asp	Met	Gly	Thr	Gln	Gln	Phe	Leu	Gln
			85					90					95		
Leu	Asn	Pro	Asn	Leu	Gln	Lys	Phe	Ser	Arg	Asp	Met	Glu	Asp	Val	Lys
		100						105					110		
Gly	Thr	Pro	Ser	Lys	Pro	Leu	Glu	Asn	Tyr	Asn	Met	Leu	Ala	Gly	Leu
		115					120						125		
Gly	Gly	Ser	Arg	Val	Ser	Ser	Gln	His	Phe	Gly	Arg	Leu	Arg	Gln	Glu
	130					135					140				
Asp	Arg	Leu	Ser	Pro	Gly	Val	Gln	Asp	Gln	Pro	Gly	Pro	His	Ser	Glu
145					150					155				160	
Thr	Pro	Ile	Ser												

<210> 4251

<211> 1574

<212> DNA

<213> Homo sapiens

<400> 4251

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120
gggggggggc caggccctaa cccatttat ttcattccac agatgagggc aaccttaaga
180
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240
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300
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360
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420
cgcccccttc ccactcacca cccccacccc aggtgctggg ggtcccttat ttttatgcaa
480

taactgagct tgatgggggt gggcaggggg ccagttgagc caatcaccag cctccatata
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 600
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 660
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 720
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 780
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 1260
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 1560
 agacagcctc tggt
 1574

<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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 Thr Asp Pro Asp Pro Glu Ser Gln Glu Leu Gln Ile Gly Gly Thr Cys
 20 25 30
 Pro Asp Ile Thr Lys Arg Tyr Leu Arg Leu Thr Cys Ala Pro Asp Pro
 35 40 45
 Ser Thr Val Arg Pro Val Ala Val Leu Lys Lys Ser Leu Cys Met Val
 50 55 60
 Lys Cys His Trp Lys Glu Lys Gln Asp Tyr Ala Phe Ala Cys Glu Gln

65		70		75		80									
Met	Lys	Ser	Ile	Arg	Gln	Asp	Leu	Thr	Val	Gln	Gly	Ile	Arg	Thr	Glu
			85						90					95	
Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
		100						105					110		
Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
	115					120					125				
Tyr	Ala	Glu	Asn	Leu	Pro	Gly	Asn	Val	Gly	Glu	Phe	Thr	Ala	Tyr	Arg
	130					135					140				
Ile	Leu	Tyr	Tyr	Ile	Phe	Thr	Lys	Asn	Ser	Gly	Asp	Ile	Thr	Thr	Glu
145				150						155					160
Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
			165						170					175	
Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
	180						185					190			
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
	195						200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
	210					215					220				
Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235					240
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
			245						250					255	
Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260					265					270			
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
	275						280					285			
Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290					295					300				
Ala	Ser	Gly	Ala	Ser	Ser	Pro	Pro	His	Leu	Cys	Val	Ser	Ser	Ser	Cys
305					310					315					320
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325						330					335	
Arg	Thr	Leu	Arg	Ser	Leu	Leu	Ser	Gln	Leu	Val	Ala	Val	Leu	Pro	Pro
		340						345					350		

<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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ggatagatag aactatcggc cccaattcct cagccctacc tgcaaccacc gcttgccatg

120

gtttccttgt ggggtggaggg tactttcccg ccccttggtt tggggttgcc ccacgtggct

180

tgctctggcc atggaatgaa gcagaaacga aagcctgcca gttctgagcc tatgccggaa

240

gacgccttgg gcggttcgc ggtccctgtg cgcttcacc ttcaccaga aggacttctc

300

tgggtcagcc gctgcttctt cagccacggc ccaaaaggat cggagccccc tggccgatcc

360

gcaggtctgc agggagccac agagcgagc ggccggccca gcgttcaagc ccaagcacag
 420
 gcctgcgaga accttgttcc agccaccgtt tgggatggtt gattaggact tgttgcaagt
 480
 gcggtagctc accaatccag tgcgtgcacc cgctccttta ttaggctata gagccagtgg
 540
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 600
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 660
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 720
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 780
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 900
 tgaagaagca gggctgcac cagagaaggc cctctgggtg aaggtgggag cgcacggggc
 960
 ccgcggaacc acctaaaggc acttcagacg tgggctcgga actggcagcc ttctgtttct
 1020
 gcttcattcc aaggccagag caagccacgt gggcaaacc aaagccaggg gacaggaaag
 1080
 tatcctccac ccacaacgaa accatggcaa gcggtggatg caggtacggc caatagtcta
 1140
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 1200
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 1287

<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35					40					45		
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
			50				55				60				
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70				75					80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90						95	
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<210> 4255

<211> 2205

<212> DNA

<213> Homo sapiens

<400> 4255

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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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			20					25					30		
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
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65					70					75				80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
				85					90					95	
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			100					105					110		
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		115				120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
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His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

145 150 155 160
 His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
 165 170 175
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 180 185 190
 Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
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 Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
 210 215 220
 Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
 225 230 235 240
 Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
 245 250 255
 His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
 260 265 270
 Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
 275 280 285
 Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
 290 295 300
 Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
 305 310 315 320
 Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
 325 330 335
 Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
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 Ala Pro Gln Lys Glu Cys Phe Gly Ile Val Gly Ala Lys Ser Pro
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 Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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 180
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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

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			20					25					30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
			35					40					45		
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
			50				55				60				
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65					70					75				80	
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
				85				90						95	
Tyr	Gln	Gly	Leu	Leu	Leu	Gln	Arg	Val	Pro	Phe	Asn	Val	Asp	Phe	Asp

	100		105		110
Lys	Leu	Pro	Arg	His	Lys
	115		120		125
Ile	Pro	Gln	Ala	Thr	Asp
	130		135		140
Asn	Met	Leu	Lys	Ile	Leu
	145		150		155
Pro	Val	Ile	Ile	Met	Gly
					160
Lys	Phe	Leu	Ser	Asp	Leu
	180		185		190
Lys	Leu	Val	Lys	Val	His
	195		200		205
Arg	Val	Arg	Glu	Ala	Glu
	210		215		220
Gln	Leu	Asp	Thr	Ile	Leu
	225		230		235
Ile	Ser	Cys	Ile	Lys	Glu
					240
Pro	Leu	Ala	Glu	Asp	Ser
	260		265		270
Tyr	Pro	Glu	Asn	Ser	Glu
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Leu	Gly	Tyr	Arg	Val	Ser
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Ile	Pro	Leu	Gly	Tyr	Thr
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<210> 4259

<211> 377

<212> DNA

<213> Homo sapiens

<400> 4259

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<210> 4260

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4260

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 Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile
 35 40 45
 Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
 50 55 60
 His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
 65 70 75 80
 Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
 85 90 95
 Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
 100 105 110
 Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly Ala
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<210> 4261

<211> 592

<212> DNA

<213> Homo sapiens

<400> 4261

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<211> 156

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<213> Homo sapiens

<400> 4262

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Asn	Tyr	Leu	Arg	His	Gly	Gln	Leu	Ile	Val	Asn	Asp	Gly	Ile	Asn	Leu
	50		55		60										
Leu	Gly	Val	Leu	Glu	Glu	Ala	Arg	Phe	Phe	Gly	Ile	Asp	Ser	Leu	Ile
65			70		75									80	
Glu	His	Leu	Glu	Val	Ala	Ile	Lys	Asn	Ser	Gln	Pro	Pro	Glu	Asp	His
	85		90		95										
Ser	Pro	Ile	Ser	Arg	Lys	Glu	Phe	Val	Arg	Phe	Leu	Leu	Ala	Thr	Pro
	100		105		110										
Thr	Lys	Ser	Glu	Leu	Arg	Cys	Gln	Gly	Leu	Asn	Phe	Ser	Gly	Ala	Asp
	115		120		125										
Leu	Ser	Arg	Leu	Asp	Leu	Arg	Tyr	Ile	Asn	Phe	Lys	Met	Ala	Asn	Leu
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Ser	Arg	Cys	Asn	Leu	Ala	His	Ala	Asn	Leu	Cys	Cys				
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<210> 4263

<211> 7710

<212> DNA

<213> Homo sapiens

<400> 4263

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180

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600

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660

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780

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840

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900

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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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Glu	Arg	Glu	Glu	Leu	Phe	Phe	Arg	Ala	Leu	Cys	Leu	Cys	His	Thr	Val
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Gly	Gly	Lys	Ser	Cys	Val	Tyr	Ile	Ser	Ser	Ser	Pro	Asp	Glu	Val	Ala
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<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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<211> 2230

<212> DNA

<213> Homo sapiens

<400> 4267

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<213> Homo sapiens

<400> 4268

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<212> PRT

<213> Homo sapiens

<400> 4270

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Thr Ala Ala Arg Asp Met Ile Asn Met Lys Ala Leu Ala Ala Leu Lys
65 70 75 80
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gcagtgcagg cctcagaagt ccagcaggca gagagcgagg ttccagacat tgaatccagg
1320
attgcagccc tgagggccgc agggctcacg gtgaagccct cgggaaagcc ccggagggaag
1380
tcaaacctcc cgatatttct cctcagagt gctgggaaac ttggcaagag accagaggag
1440
ccaaatgcag acccttcaag tgaggccaag gcaatggctg tgcctatctt ctgagaagaa
1500
agttcagtaa ttccctgaaa agtcaaggta aagatgatga ttcttttgat cggaaatcag
1560

tgtaccgagg ctgcgtgaca cagagaaacc ccaacgcgag gaaaggaatg gccagccaca
 1620
 ccttcgcgaa acctgtggtg gcccaccagt cctaacggga caggacagag agacagagca
 1680
 gccctgcact gttttccctc caccacagcc atcctgtccc tcattggctc tgtgctttcc
 1740
 actatacaca gtcaccgtcc caatgagaaa caagaaggag caccctccac atggactccc
 1800
 acctgcaagt ggacagcgac attcagtcct gcaactgtca cctgggttta ctgatgactc
 1860
 ctggctgccc caccatcctc tctgatctgt gagaacagc taagctgctg tgacttccct
 1920
 ttaggacaat gttgtgtaaa tctttgaagg acacaccgaa gacctttata ctgtgatctt
 1980
 ttaccctttt cactcttgge tttcttatgt tgctttcatg aatggaatgg aaaaaagatg
 2040
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

Met	Ala	Leu	Gly	Lys	Leu	Leu	Leu	His	Ser	Gly	Arg	Met	Ser	Ser	Gly
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Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
			50			55					60				
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65				70					75				80		
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
			115				120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
			130			135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145				150					155					160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170					175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180				185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
			195			200					205				
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
			210			215					220				
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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120

ctcagtcgga agcctgtgtc catcgtgtcc ccggagccag ggaccacccg tgacgtgctg
180

gagaccccag tcgacctggc cggatttcct gtgctgctga gcgacacggc tgggttgctg
240

gagggcgctgg ggcccgtgga gcaggagggc gtgcggcgcg cccgggagag gctagagcag
300

gctgacctca ttctggccat gctggatgct tctgacctgg cctctccctc cagttgcaac
360

ttcttgcca ccgtcgtagc ctctgtggga gccagagcc ccagtgcag cagccagcgc
420

ctctccttg tgctgaacaa gtcggacctg ctgtccccg agggcccagg tcccgtcct
480

gacctgcccc cgcacctgct gctgtcctgt ctgacgggag aggggctgga cggcctcctg
540

gagggcgtga ggaaggagct agctgcagtg tgtggggacc cgtccacaga tccccgctg
600

ctgacctgag caaggcacca gcaccacctc cagggttgcc tggatgcctt cggccactac
660

aagcagtcaa aagacctggc cctggcggca gaggcgctgc ggggtggccg gggtcacctg
720

acccggctca caggtggagg gggtagcgag gagatcctgg acatcatctt ccaggacttc
780

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840

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874

<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln
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Arg Leu Arg Ser Gly Ala His Val Val Val Thr Gly Pro Pro Asn Ala
20 25 30

Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
35 40 45

Val Ser Pro Glu Pro Gly Thr Arg Asp Val Leu Glu Thr Pro Val
50 55 60

Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

65		70		75		80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu						
	85		90		95	
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp						
	100		105		110	
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser						
	115		120		125	
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val						
	130		135		140	
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro						
	145		150		155	160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu						
	165		170		175	
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly						
	180		185		190	
Asp Pro Ser Thr Asp Pro Pro Leu Thr Arg Ala Arg His Gln His						
	195		200		205	
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys						
	210		215		220	
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu						
	225		230		235	240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile						
	245		250		255	
Phe Gln Asp Phe Cys Val Gly Lys						
	260					

<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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 120
 aggaccaggc ccgcgggctc agctctcgcc gccagcgggc cgcagcattt ttgaaacgtt
 180
 ggggttgttg gagtgtgttg attttcctg gaattgagt agaaattcag aagactgaag
 240
 cccaggetta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
 300
 tggcgaatca tgacagcggg caaagacaaa gacaaagaca aagagaagga ccgggaccga
 360
 gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgaaga ttcaaggcca
 420
 cgccggagct gtaccttgaaggaggagcc aaaaattatg ctgagagtga tcacagtga
 480
 gacgaggaca atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
 540
 aaaccaccga aaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
 600
 atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga gagtcggagg
 660

ccaaacacac cgtatttcat ctgtagcatt caagacttca aactgggtcca caactcccag
 720
 gcctgttgca gatctccaac tctgtctttg tgtgaccccc cagcatgctc tctgccggtg
 780
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 900
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt
 960
 acagacccag ttatcaagaa ccgagagctc ttcatttctg attacgttga cacttaccat
 1020
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 1070

<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

Met Thr Ala Asp Lys Asp Lys Asp Lys Asp Lys Glu Lys Asp Arg Asp
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 Arg Asp Arg Asp Arg Glu Arg Glu Lys Arg Asp Lys Ala Arg Glu Ser
 20 25 30
 Glu Asn Ser Arg Pro Arg Arg Ser Cys Thr Leu Glu Gly Gly Ala Lys
 35 40 45
 Asn Tyr Ala Glu Ser Asp His Ser Glu Asp Glu Asp Asn Asp Asn Asn
 50 55 60
 Ser Ala Thr Ala Glu Glu Ser Thr Lys Lys Asn Lys Lys Lys Pro Pro
 65 70 75 80
 Lys Lys Lys Ser Arg Tyr Glu Arg Thr Asp Thr Gly Glu Ile Thr Ser
 85 90 95
 Tyr Ile Thr Glu Asp Asp Val Val Tyr Arg Pro Gly Asp Cys Val Tyr
 100 105 110
 Ile Glu Ser Arg Arg Pro Asn Thr Pro Tyr Phe Ile Cys Ser Ile Gln
 115 120 125
 Asp Phe Lys Leu Val His Asn Ser Gln Ala Cys Cys Arg Ser Pro Thr
 130 135 140
 Pro Ala Leu Cys Asp Pro Pro Ala Cys Ser Leu Pro Val Ala Ser Gln
 145 150 155 160
 Pro Pro Gln His Leu Ser Glu Ala Gly Arg Gly Pro Val Gly Ser Lys
 165 170 175
 Arg Asp His Leu Leu Met Asn Val Lys Trp Tyr Tyr Arg Gln Ser Glu
 180 185 190
 Val Pro Asp Ser Val Tyr Gln His Leu Val Gln Asp Arg His Asn Glu
 195 200 205
 Asn Asp Ser Gly Arg Glu Leu Val Ile Thr Asp Pro Val Ile Lys Asn
 210 215 220
 Arg Glu Leu Phe Ile Ser Asp Tyr Val Asp Thr Tyr His Ala Ala Ala
 225 230 235 240
 Leu Arg Gly Lys Cys Asn Ile Leu His Phe Ser Asp Ile
 245 250

<210> 4279
<211> 1963
<212> DNA
<213> Homo sapiens

<400> 4279
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120
gcaatggccc tgagagacac cgaggacaag ctacgtcggc gcccgaagag gaggaaggac
180
atccttgacg agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
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300
tggtctgtgc gcgtctgect gcggaccatt gagcacgggt atgcacacagg gtctctcttt
360
gccttcacgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat
420
tacttttggt ccgtgcacag catggaggag ctcccaggct atgaagagac cctgacccgc
480
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cagcggccct gggcccagac caactggatc ctggtgcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
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840
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900
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960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
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1080
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1140
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1260
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1320
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1440
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1500

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 1620
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 1680
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 1800
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 1860
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 1920
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 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

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Met	Met	Tyr	Ser	Leu	Ser	Val	His	Gln	Leu	Gly	Lys	Met	Val	Gly	
		20					25				30				
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
	35					40					45				
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50				55					60					
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65				70				75					80		
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
		85						90				95			
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
	100						105					110			
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
	115					120					125				
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
	130				135						140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145				150				155						160	
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
		165						170					175		
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
	180						185						190		
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
	195					200					205				
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
	210				215						220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225				230				235						240	
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu

245										250				255			
Asp	Ala	Asn	Leu	Pro	Ser	Leu	Gln	Lys	Pro	Cys	Pro	Ser	Thr	Leu	Leu		
260				265				270									
Gln	Gln	His	Met	Ala	Asp	Leu	Leu	Gln	Gln	Gly	Pro	Asp	Val	Ala	Pro		
275				280				285									
Ser	Phe	Leu	Asn	Ser	Val	Leu	Asn	Gln	Leu	Asn	Trp	Ala	Phe	Ser	Glu		
290				295				300									
Phe	Ile	Gly	Met	Ile	Gln	Glu	Ile	Gln	Gln	Ala	Ala	Glu	Arg	Leu	Glu		
305	310				315				320								
Arg	Asn	Phe	Val	Asp	Ser	Arg	Gln	Leu	Lys	Val	Cys	Ala	Thr	Cys	Phe		
325				330				335									
Asp	Leu	Ser	Val	Ser	Leu	Leu	Arg	Val	Leu	Glu	Met	Thr	Ile	Thr	Leu		
340				345				350									
Val	Pro	Glu	Ile	Phe	Leu	Asp	Trp	Thr	Arg	Pro	Thr	Ser	Glu	Met	Leu		
355				360				365									
Leu	Arg	Arg	Leu	Ala	Gln	Leu	Leu	Asn	Gln	Val	Leu	Asn	Arg	Val	Thr		
370				375				380									
Ala	Glu	Arg	Asn	Leu	Phe	Asp	Arg	Val	Val	Thr	Leu	Arg	Leu	Pro	Gly		
385	390				395				400								
Leu	Glu	Ser	Val	Asp	His	Tyr	Pro	Ile	Leu	Val	Ala	Val	Thr	Gly	Ile		
405				410				415									
Leu	Val	Gln	Leu	Leu	Val	Arg	Gly	Pro	Ala	Ser	Glu	Arg	Glu	Gln	Ala		
420				425				430									
Thr	Ser	Val	Leu	Leu	Ala	Asp	Pro	Cys	Phe	Gln	Leu	Arg	Ser	Ile	Cys		
435				440				445									
Tyr	Leu	Leu	Gly	Gln	Pro	Glu	Pro	Pro	Ala	Pro	Gly	Thr	Ala	Leu	Pro		
450				455				460									
Ala	Pro	Asp	Arg	Lys	Arg	Phe	Ser	Leu	Gln	Ser	Tyr	Ala	Asp	Tyr	Ile		
465	470				475				480								
Ser	Ala	Asp	Glu	Leu	Ala	Gln	Val	Glu	Gln	Met	Leu	Ala	His	Leu	Thr		
485				490				495									
Ser	Ala	Ser	Ala	Gln	Ala	Ala	Ala	Ala	Ser	Leu	Pro	Thr	Ser	Glu	Glu		
500				505				510									
Asp	Leu	Cys	Pro	Ile	Cys	Tyr	Ala	His	Pro	Ile	Ser	Ala	Val	Phe	Gln		
515				520				525									
Pro	Cys	Gly	His	Lys	Ser	Cys	Lys	Ala	Cys	Ile	Asn	Gln	His	Leu	Met		
530				535				540									
Asn	Asn	Lys	Asp	Cys	Phe	Phe	Cys	Lys	Thr	Thr	Ile	Val	Ser	Val	Glu		
545	550				555				560								
Asp	Trp	Glu	Lys	Gly	Ala	Asn	Thr	Ser	Thr	Thr	Ser	Ser	Ala	Ala			
565				570				575									

<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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atgccccata gtctcagccc acctctcttc tgccatgagt cccctgattc tgtcctttga
120
gctgactctg agaggcagtg ggcttcccgc cagcacctcc ccctatcaca tttgtagggc
180

tggtttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc
 240
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca ttccagcagg
 300
 tcaggcatgg atgcaggtgg aatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tgggtctacag atgagtgggc tccagtctca aatgaggaga acaaataggg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct ggggtatata gctccctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

Met	Asn	Ala	Leu	Thr	Asp	Pro	Leu	Ser	Phe	Pro	Pro	Ala	Ser	Met	Pro
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Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20					25					30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
			35				40					45			
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
			50			55					60				
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65					70					75				80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85					90						95	
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

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 120
 gggagaaacc gagtccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag
 240
 cctcattcct gcccgcactc cgccaaactg ctgcacctgc ccagcgcagc ggatgcagcg
 300
 ctcccgcccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284

Met	Gly	Cys	Pro	Ser	Ala	Ala	Asp	Arg	Phe	Pro	Arg	Arg	Pro	Asn	Arg
1				5					10					15	
Ser	Asn	Gly	Gln	Gly	Arg	Gly	Ala	Gly	Gly	Pro	Gly	Glu	Thr	Glu	Ser
		20				25						30			
Pro	Pro	Gly	Pro	His	Arg	Val	Ala	Pro	Thr	Glu	Ile	Thr	Pro	Val	Gln
		35				40						45			
Leu	Gln	Lys	Pro	Ser	Arg	Lys	Pro	Lys	Leu	Val	Arg	His	Asn	Phe	Gly
	50					55					60				
Leu	Ser	Ser	Leu	Ile	Pro	Ala	Arg	Thr	Pro	Pro	Asn	Cys	Ser	Pro	Cys
65					70				75					80	
Pro	Ala	Gln	Arg	Met	Gln	Arg	Ser	Arg	Pro	Xaa					
			85						90						

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285

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 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcaccc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
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 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggccctcagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
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 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286

Cys	Pro	Ala	Cys	Ser	Leu	Thr	Pro	Asp	Pro	Pro	Leu	Asn	Pro	Phe	Pro
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Gln	Arg	Asp	Leu	Ala	Val	Thr	Thr	Arg	Thr	Trp	Ser	Pro	Pro	Glu	Ser

<400> 4288

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1 5 10 15
 Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20 25 30
 Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35 40 45
 Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50 55 60
 Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65 70 75 80
 Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ser Asn
 85 90 95
 Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
 100 105 110
 Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
 115 120 125
 Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
 130 135 140
 Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
 145 150 155 160
 Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
 165 170 175
 Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
 180 185 190
 Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
 195 200 205
 Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
 210 215 220
 Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
 225 230 235 240

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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 120
 caaagagcct tttgggaaca gttttcttat tgaacatac tcagtgttta aacctgcagg
 180
 tgtgggttgg tggcagteca catggcatcc tttgctctgt cctgttctc ctgtctctgg
 240
 ctattcaggt tcccgtagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
 300
 gccctgttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
 353

<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1 5 10 15
 Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20 25 30
 Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35 40 45
 Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50 55 60
 Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65 70 75 80
 Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85 90 95
 Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100 105 110
 Leu

<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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 120
 tggagagaca cactttctca gaagtttggga tcttcagatc acttggagaa actatttaag
 180
 atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagttca
 240
 caatttttct ctgatcaaga aatagctcat ctgctgctg aaaatgtgag tgcgctccca
 300
 gctacgggtg cagttgcttc tccacatacc acctcggtca ctccaaagcc cgccaccctt
 360
 ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
 420
 gctccacctg taaccactgt cacttctcag cctcccacga ccttcatttc tacagttttt
 480
 acacgggctg tggctacact ccaagcaatg gctacaa
 517

<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
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 Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

	20		25		30										
Tyr	Ser	Lys	Pro	Thr	Asp	Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys
	35		40		45										
Phe	Gly	Ser	Ser	Asp	His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala
	50		55		60										
Ser	Ala	Gln	Leu	Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser
65			70		75									80	
Gln	Phe	Ser	Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val
			85		90									95	
Ser	Ala	Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser
	100		105		110										
Ala	Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr
	115		120		125										
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	Val
	130		135		140										
Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	Val	Phe
145			150		155									160	
Thr	Arg	Ala	Val	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr				
			165		170										

<210> 4293

<211> 547

<212> DNA

<213> Homo sapiens

<400> 4293

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120

tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag
180

gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag
240

atgtctggaga agctgacgtc cagaccaaag catttactgg tatttatcaa cccgtttgga
300

ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactgtt caccttagcc
360

tccatcacca ctgacatcat cgttactgaa catgctaate aggccaagga gactctgtat
420

gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc
480

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540

ccccggg

547

<210> 4294

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4294

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Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly			
20	25	30	
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val			
35	40	45	
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp			
50	55	60	
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu			
65	70	75	80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile			
85	90	95	
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys			
100	105	110	
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val			
115	120	125	
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile			
130	135	140	
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser			
145	150	155	160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val			
165	170	175	
Asp Gln Asn His Pro Arg			
180			

<210> 4295

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4295

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120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagaccccca ttgccacaaa gcctaaaaca ttggccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcgggtggc gtggctcccg cctgtaatcc cagcacttg gaaggctgag
300
gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc
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cgtgccaacc a
431

<210> 4296

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4296

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

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Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
	65	70	75
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
	130	135	

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccatacctca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgctgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
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540
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600
gccaaagtat ccatacctag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaaatcac aactgactca cacttcccca gacaggacca gttgcctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccg
780
aagctgtatc agtgcaatgg gatcgctgg aaagcctgga gtcccaaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

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acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tggtagggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggc
 1080
 ggtgaacctg ttgccttcac caatgggaga agaggccct ctccacgctc caagcttgga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
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 1260
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 1320
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 1380
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 1440
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 1560
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 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa	Met	Asp	Ser	Ala	Phe	Val	Gly	Ile	Lys	Val	Asn	Gln	Val	Ser	Ala
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Ala	Val	Gly	Lys	Asp	Phe	Thr	Val	Ile	Pro	Ser	Lys	Leu	Ile	Gln	Phe
			20					25					30		
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
		35					40					45			
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50				55						60				
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65					70					75				80	
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
				85					90					95	
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
			100					105					110		
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
		115					120					125			
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
	130				135						140				
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
145					150					155				160	
Asn	Gly	Lys	Thr	Val	Arg	Pro	Ser	Ser	Val	Tyr	Arg	Asn	Gly	Thr	Asp

	165		170		175
Ile Ile Tyr	Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp				
	180		185		190
Ser Phe Pro	Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln				
	195		200		205
Pro Gln Lys	Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val				
	210		215		220
Glu Ser Thr	Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser				
225		230		235	240
Phe Pro Lys	Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu				
	245		250		255
Glu Gly Ile	Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala				
	260		265		270
Trp Ser Pro	Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly				
	275		280		285
Trp His Gln	His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys				
	290		295		300
Gly Thr Trp	Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly				
305		310		315	320
Asn Leu Val	Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp				
	325		330		335
Ile Gly Gly	Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His				
	340		345		350
Ala Gly His	Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn				
	355		360		365
Gly Arg Arg	Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val				
	370		375		380
Leu Val Gln	Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala				
385		390		395	400
Lys Pro His	Asn Tyr Val Cys Ser Arg Lys Leu				
	405		410		

<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

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120
ccttgggaca ggccccgag cacaagtga ggctgtctat ggagttctgc agcacgtgca
180
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240
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480

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 540
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 600
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 660
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 720
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 780
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 900
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 960
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 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
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Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20				25						30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35					40					45			
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50					55				60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70				75					80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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420
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720
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 1980
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